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EDUCATION FOR COMPETITIVE AMERICA ACT

HEARING

BEFORE THE

SUBCOMMITTEE ON
EDUCATION, ARTS AND HUMANITIES

OF THE

COMMITTEE ON
LABOR AND HUMAN RESOURCES
UNITED STATES SENATE

ONE HUNDREDTH CONGRESS

FIRST SESSION

ON

S. 406

TO PROVIDE ADDITIONAL FEDERAL EDUCATION PROGRAMS DESIGNED TO STRENGTHEN COMPETITIVENESS OF AMERICAN INDUSTRY, AND FOR OTHER PURPOSES

MARCH 23, 1987

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EDUCATION FOR COMPETITIVE AMERICA ACT

MONDAY, MARCH 23, 1987

U.S. SENATE,
SUBCOMMITTEE ON EDUCATION, ARTS AND HUMANITIES,
COMMITTEE ON LABOR AND HUMAN RESOURCES,
Washington, DC.

The Subcommittee convened, pursuant to notice, at 10:00 o'clock a.m., in Room SD-430, Dirksen Senate Office Building, Senator Claiborne Pell, (Chairman of the Subcommittee) presiding.

Present: Senators Pell, Stafford, and Thurmond.

PREPARED STATEMENT OF SENATOR PELL

Senator PELL. The Subcommittee on Education, Arts and Humanities will come to order.

Today's hearing will examine the critical role that education must play in strengthening our trade preparedness. In that endeavor, it is important to realize that the primary educational tools in our fight to remain competitive already exist in law. They need only the teeth of better funding in order to be effective.

The Education for Competitive America Act which I have introduced along with Senators Dodd and Simon stakes out the areas in Federal education programs where substantial increases would fortify our assault.

In my mind, the most critical component of this legislation calls for a five-year reauthorization and full funding for the Education for Economic Security Act. As the competition from abroad grows more threatening, it becomes increasingly clear that we must revitalize our efforts in math and science at all levels of instruction.

Senator Stafford and I were the chief authors of the original math and science law; we introduced this bill in 1982 to address our weakening position in the international marketplace. Regrettably, appropriations for this program have never exceeded $80 million—far below the $350 million authorization.

Today we are in an even more vulnerable position, and as we look at ways we can make ourselves stronger in the global economy, I can only reflect upon how much further along we would be in that effort had we been able to see this program fully funded.

At this point we will recieve for the record statements by Senators Hatch, Matsunaga, and Simon.

[The prepared statements of Senators Hatch, Matsunaga, and Simon follow:]

PREPARED STATEMENT OF SENATOR HATCH

Senator HATCH. Mr. Chairman, I am most pleased that the Education Subcommittee is holding this hearing. Not only do I believe that it is critically necessary for us to become more competitive as a nation, I also believe that education is the foundation for that improvement.

I was pleased also to introduce the Administration's "competitiveness package". While I do not endorse all of its proposals, its thrust is certainly in the correct direction and I look forward to working with my colleagues on the Subcommittee and the full Labor and Human Resources Committee to design to coherent package of measures to address this problem.

Mr. Chairman, again I commend you for holding this hearing. I look forward to the testimony of the excellent witnesses who will appear this morning.

Senator Spark M. Matsunaga

Statement for the Record

Hearing, March 23, 1987
Subcommittee on Education, Arts, and Humanities
Senate Committee on Labor and Human Resources
S. 406: Education for Competitive America Act

I would like to reiterate my support for this most important legislation, and to call particular attention to Section 6(B), which authorizes additional international business education programs.

The University of Hawaii College of Business Administration has for many years offered a joint degree in business and international studies. In Hawaii, we have long recognized the need for American businesses to understand and operate in the international market. The University of Hawaii has a unique program in that it focuses on one major region of the world -- the Pacific Region. It is my hope that the programs funded through this bill will recognize the advantages of specializing regionally. Unlike many other schools, which try to build more generic programs, Hawaii has recognized that there are special problems in different regions and that it is very difficult to gain uniform expertise on the whole world.

This philosophy has led to a very special program that calls upon experience of many university departments concerning the Pacific region. The University of Hawaii student has access to Pacific basin programs and experts in energy, law, ocean science, medicine and engineering. Of all of the people learning Japanese in the United States, 50 percent are taking courses at the University of Hawaii. UH teaches more Asia/Pacific languages than any other University in the world. And the special facilities of the East/West Center provide ideal setting for understanding the cultures of the Pacific region.

At the University of Hawaii, students have the opportunity to walk across the cultural bridge between the U.S. mainland and the Asia/Pacific region through interaction with the multiracial population of Hawaii, two-thirds of whom are from this region. Furthermore, they may take advantage of a unique network of universities in the whole Asia/Pacific region.

As with the legislation we are considering, the University of Hawaii curriculum has as its principal focus U.S. competitiveness in international markets. By tying international business with technology management, students learn how to utilize technology to become more competitive. Also they are already engaged in international education, with students from, among other places, Japan, China, Australia, New Zealand and Indonesia.

The University of Hawaii has offered advanced management courses to executives since 1953, along with undergraduate and graduate level programs. Ahead of its time, the University has long recognized that our undergraduate students are our future, but that professional executives are our present. Helping American executives to understand our world and how to adjust and thrive in the international marketplace has long been a major goal of the program.

I am hopeful that the Congress as a whole will recognize the need for programs such as those at the University of Hawaii, and that the support so deserved by these programs will be forthcoming.

Spark M. Matsunaga
U.S. Senator

STATEMENT OF PAUL SIMON ON S.406, THE EDUCATION FOR COMPETITIVENESS ACT OF 1987

March 23, 1987

Mr. Chairman, the legislation before us today reflects the most vital components of preparing a flexible and competitive workforce. I am pleased to be a primary cosponsor of S.406 and commend the Chairman for his work to include the critical areas of technical training, math and science education and foreign language study in his bill.

I am particularly pleased to see an expansion of foreign language and area studies programs in this bill as well as my own proposal for a state administered program of foreign language enhancement at the elementary and secondary levels.

Our witnesses are particularly well qualified to let us know what has to be done and how to do it. Productivity at home and the marketing of U.S. goods and services abroad require a better educated, more technologically literate, and language capable workforce--from the manufacturing worker who must adapt to new industries, product changes and redesign, to the salesman who must sell in a language other than English.

I am looking forward to early consideration of this bill as part of a Senate trade package. This bill is the investment portfolio of any trade bill--an investment in the people who can make our economic system second to none.

Senator PELL. I am very grateful to all of our witnesses this morning for the expert knowledge and insight they bring to bear on this important effort. We trust your remarks will be limited to five minutes, but the full text of your remarks will be printed in the record as if read.

Dr. McMahon?

STATEMENT OF HON. ELEANOR McMAHON, COMMISSIONER OF HIGHER EDUCATION, STATE OF RHODE ISLAND; DR. F. JAMES RUTHERFORD, CHIEF EDUCATION OFFICER, AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, AND CHARLES PARRY, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, ALUMINUM COMPANY OF AMERICA

Dr. McMAHON. Thank you, Senator Pell.

I wish to thank the Subcommittee and especially you for giving me this opportunity to speak in favor of Title I of the Education for a Competitive America Act.

As you all know, not only is Senator Pell in general as good a friend to education as this country has ever had, but specifically he was a prime mover of the original Education for Economic Security Act.

I am pleased to endorse wholeheartedly his initiative to reauthorize and provide full funding for this landmark legislation.

This reauthorization measure is well-placed as the very first piece of the Education for a Competitive America Act. You will not be surprised to learn that, as an educator, I agree that a solid knowledge base is indispensable to our success in a high-tech worldwide economy.

Let me draw a relevant example from Senator Pell's and my experience. Boom times have come to New England in the last several years, and though the principle of multiple causation has obviously been at work, the tradition of excellence in mathematics, science and technology in our institutions of higher education has made a significant contribution to improving the economic climate and to making our State and region more attractive to the business community.

There are two main factors which have been responsible for strengthening these areas of instruction even further as a State educational priority in Rhode Island in recent years. The first, which is the result of a closely coordinated joint effort between the secondary and postsecondary segments of the education community, is the substantial strengthening of high school course requirements, particularly in mathematics and science, and especially for college-bound students. This has resulted in our secondary schools providing considerably more instruction on these subjects—a necessary but not sufficient condition to insuring that the graduates of our high schools have career options open to them in engineering, mathematics, science and the new technologies such as robotics.

The second major factor that put math, science and computer instruction high on our educational agenda was the Federal support that has come to the State as a result of the enactment of the Education for Economic Security Act. The timing for this support was excellent, coming as it did on the heels of a report issued by a study group that put forth as one of its principal recommendations the provision of additional in-service education for math and science teachers.

According to that study, "Eighty percent of the teachers responded positively to the question about the desirability of in-service training." So we had a happy conjunction of substantially stronger math and science course requirements for high school graduation, math and science teachers across the State practically begging for the kinds of increased preparation in their fields that would enable them to provide quality instruction in the new courses and, just in the nick of time, significant Federal dollars to finance the in-service education that was in such great demand.

What specifically have we done with these Federal dollars?

With the higher education portion of Rhode Island's share, during the past two academic years we have distributed competitive grants to four colleges and universities to conduct a variety of in-service training programs.

As a small sample of the work that has been going on as a result of this support, I would note the University of Rhode Island's, "How to do Physics with Very Little Money" workshop, and Brown University's "Brown Biology Forum."

At the local school district level, Title II funds have been used primarily to train elementary school teachers. Nearly 4,000 Rhode Island teachers have received math, science or computer science training because of Title II.

Title II has also supported State leadership for the following kinds of activities: development of kindergarten through grade 3 learner outcomes in mathematics; promotion of national and local exemplary math and science programs to interested local school districts; support for a project whose mission is to improve the math and science skills of minority students so that they can pursue careers in math, science and engineering.

In sum, if America is to acquire the competitive edge that is essential to our economic welfare, we must rely not only on hard work but on hard knowledge as well. And the kinds of knowledge that seem most critical to us in achieving this goal, as reflected in mathematics and science achievement test scores, have been hard for most Americans, as contrasted with students from other cultures, to come by.

The initial enactment of the Education for Economic Security Act provided a substantial boost to us in trying to close this gap, and its reauthorization and full funding will continue and strengthen the Federal support that we in the education community see as an essential part of this overriding national priority.

Thank you, Senator.

Senator PELL. Thank you very much indeed, Dr. McMahon.

[The prepared statement of Dr. McMahon follows:]

TESTIMONY

of

ELEANOR M. McMAHON

COMMISSIONER OF HIGHER EDUCATION

FOR THE STATE OF RHODE ISLAND

on

TITLE I OF THE EDUCATION FOR A COMPETITIVE AMERICA ACT

SUBCOMMITTEE ON EDUCATION, ARTS, AND HUMANITIES

UNITED STATES SENATE

MARCH 23, 1987

REAUTHORIZATION AND FULL FUNDING OF THE EDUCATION FOR ECONOMIC SECURITY ACT

I want to thank the subcommittee, and especially Senator Pell, for giving me this opportunity to speak in favor of Title I of the Education for a Competitive America Act. As you all know, not only is Senator Pell in general as good a friend to education as this country has ever had, but specifically he was a prime mover of the original Education for Economic Security Act. I am pleased to endorse wholeheartedly his initiative to reauthorize and provide full funding for that landmark legislation.

I think that this reauthorization measure is well placed as the very first piece of the Education for a Competitive America Act. You won't be surprised to learn that, as an educator, I agree that a solid knowledge base is indispensable to our success in a high-tech worldwide economy. Let me draw a relevant example from Senator Pell's and my experience. Boom times have come to New England in the last several years, and though the principle of multiple causation has obviously been at work, I believe that the tradition of excellence in math, science and computer instruction at our institutions of higher education has made a significant contribution to improving the economic climate and to making our state and region more attractive to the business community.

There are two main factors that have been responsible for strengthening these areas of instruction even further as a state educational priority in Rhode Island in recent years. The first, which is the result of a closely coordinated joint effort between the secondary and postsecondary segments of the education community, is the substantial strengthening of high school course requirements, particularly in mathematics and science, and especially for college-bound students. This has resulted in our secondary schools' providing considerably more instruction in these subjects--a necessary but not sufficient condition to insuring that the graduates of our high schools have career options open to them in engineering, mathematics, science and the new technologies such as robotics.

The second major factor that put math, science and computer instruction high on our educational agenda was the federal support that has come to the state as a result of the enactment of the Education for Economic Security Act. The timing for this support was excellent, coming as it did practically on the heels of a report issued by a study group that my office sponsored that put forth as one of its principal recommendations the provision of additional in-service education for math and science teachers. According to the study, "Eighty percent of the teachers [surveyed by the group] responded positively to the question about the desirability of in-service training. There was strong support for in-service work in all areas listed in the questionnaire: methodology, research, content and technology."

And so we had the happy conjunction of (1) substantially stronger math and science course requirements for high school graduation, (2) math and science teachers across the state practically begging for the kinds of increased preparation in their fields that would enable them to provide quality instruction in the new courses and class sections that the graduation requirements had generated, and, (3) just in the nick of time, significant federal dollars to finance the in-service education that was in such great demand.

What specifically have we done with those federal dollars? With the higher education portion of Rhode Island's share, during the past two academic years we have distributed competitive grants to four colleges and universities to conduct a variety of in-service training programs for math and science teachers. As a small sample of the work that has been going on as a result of this support, I would note the following:

- The University of Rhode Island's "How to do Physics with Very Little Money" workshop, led by a teacher from Portsmouth High School, in which participants are shown how, despite the scarcity of expensively equipped physics laboratories, they can put on highly entertaining--and highly instructive--demonstrations of important principles of physics in an ordinary high school classroom using such common, everyday materials as nails, rolls of coins and embroidery hoops.
- Brown University's "Brown Biology Forum," in which teachers meet with colleagues and university researchers to keep abreast of new developments in the field. Teachers are exposed to such sessions as "Facts and Myths in Health Maintenance," in which teachers are urged to be advocates of appropriate and effective health care intervention, and they are trained to cover such topics as the physiology of exercise, teenage sexuality and adolescent suicide.

At the local school district level, Title II funds have been used primarily to train elementary school teachers in math and science. Nearly 4,000 (K-12) Rhode Island teachers have received math, science or computer science training because of Title II.

At the state level of elementary and secondary education, Title II has supported state leadership for the following kinds of activities:

- Development of K-3 learner outcomes in mathematics as part of the elementary/secondary Commissioner's programs to insure the acquisition of literacy skills (including math) in the early years of schooling.
- Promotion of national and local exemplary math and science programs to interested local school districts.
- Support for a project whose mission is to improve the math and science

skills of minority students so that they can pursue careers in math, science and engineering.

In sum, if America is to acquire the competitive edge that is essential for our economic welfare, we must rely not only on hard work but on hard knowledge as well. And the kinds of knowledge that seem most critical to us in achieving this goal have traditionally been hard for most of us Americans--as contrasted with people from some other cultures--to come by. The initial enactment of the Education for Economic Security Act provided a substantial boost to us in trying to close this gap, and its reauthorization and full funding will continue and strengthen the federal support that we in the education community need so much to do our part in the service of this overriding national priority.

rsd6

Senator Pell. Dr. Rutherford?

Dr. Rutherford. Thank you, Senator.

Before beginning, I would like to recall with pleasure that you and Senator Javits sponsored my confirmation here, when the Department of Education was started, as Assistant Secretary for Research. I think it is a sad note that the Department that was established to help solve problems in some ways has become part of the problem.

I would like to make four points about the bill. The first is I think it is important to know that the need is very much greater than ever. It is not as though we have been solving these problems in the last decade; we have mostly been ignoring them.

One refers back to Sputnik—but you know, that was simpler in many ways. We had one competitor, the Soviet Union. The contest was aerospace; we knew where we had to go, and we had to get some scientists and engineers to get there.

Now, what is the state of affairs? Every nation, friend and foe, is our competitor. It is not just a matter of aerospace; it is agriculture; it is manufacturing; it is high-technology; it is information manufacturing and industry. And it is not just producing scientists/engineers, but it is producing a modern work force at every level that can bring us up to this international competition.

In other words, all of us are involved this time, not just an elite core of scientist/engineers. Every uneducated American coming out of our schools holds us back. Every obsolescent worker who cannot be reeducated or will not be educated is an impediment to our national competitive position. In other words, it is our collective capability that counts this time around.

I would like to suggest an index in this regard. We have such things as the balance of trade to see how we are doing. I would like to suggest that the new index is right up there on the chart, Senator—the balance of education in science and mathematics.

Children who are being born this year will begin those studies 20 years from now. If the United States is not at or near the top of those charts in science and mathematics, we will have every indication we need that, in fact, we are not going to make it as a modern nation.

The second point I would like to offer is that Title I, the Education for Economic Security Act, be kept where it is, embedded in this larger Act on the Education for Competitive America. It is important that we see that education must serve our national purposes. Education is not something that just exists for itself; it has purposes to serve, and those in our time have to do as part of the national strategy for reestablishing our strength in international competition. So it is important that it is there and that it be the first title in the Act.

My third point has to do with the Act itself. I would like to offer two recommendations with regard to it.

The first is that every effort should be made to resist Administration efforts to broaden the coverage of the Act to include school administrators and teachers in all other fields other than science, mathematics, computer literacy and foreign languages. To do so softens the focus of the bill and makes it less clear what the purpose of it is. It spreads out the money very thinly so that the schools cannot get enough of it in any one category to make a difference.

If they do want to broaden the base, then they should come up with plans for doing it and with additional resources.

The second recommendation about the Act is that perhaps it should be looked at in a way to make it more flexible. There is a complex series of formulas embedded in it, the net result of which may be that when the funds finally get to the individual schools and school districts, it is in pieces that are too small to be effective.

I would like rather to see more flexibility with handling of the awards. Perhaps that could be done by giving the States more latitude in figuring out how to aggregate the funds to use them more effectively; or that the formulas apply over three to five years so that the total does not get divided up each year among all eligible districts, but over a span of time reaches every district.

Another thing that might help here is to increase the fraction designated as being discretionary for the Secretary of Education and for the State departments of education, that is, the chief State school officers, so that they can be more imaginative in bringing the whole State to an advanced position.

My final comment has to do with continuity. It is absolutely urgent, in my judgment, Senator, that the continuity of funding somehow rather be assured. That is why it is so important that you stick to the notion of full funding for five years. If the schools have to go year by year, they cannot plan, they cannot be imaginative; they will simply take the funds and use them on the problem closest at hand, and five years later we are still confused and have not made progress.

So somehow or other, building this kind of safeguard in, I think, can much assure the school people that the United States Government is in this thing to stay and work with them to bring us up to where we all know we need to be.

Thank you.

Senator **Pell**. Thank you very much indeed, Dr. Rutherford.

Mr. Parry, you were very kind and came down about a week ago for the joint hearing that we had. Thank you for again being with us.

Mr. **Parry**. Thank you, Mr. Chairman. I am honored to have been invited again to testify on the subject of education for a competitive America.

I would like to begin with a true story. We have a young engineer at one of our plants who was born and raised in Vietnam. She graduated from high school in Saigon in 1975 and managed to get to the United States, where she entered and subsequently graduated with a degree in engineering from one of this country's top State universities.

She attended plain vanilla public schools in Vietnam where English was part of her studies. When asked about the difficulty of competing in a major U.S. university, she responded that there was absolutely no difficulty since she was about two years ahead of her American classmates.

The $578 million to be spent under this bill, if allocated over the 16,000 school districts in this country, would provide each district with one additional teacher on average. My point is this. If engineering students at one of our top universities are two years behind another student whose elementary and secondary education came in Vietnam during and immediately after the war years, then what you are proposing just is not going to do the job that must be done.

While I have no specific disagreements with the proposals under this bill, I would much prefer that the Congress address more critical aspects of public education that either do or will affect our nation's ability to compete in this increasingly global economy.

First, in our seemingly endless quest for equality, we have walked away from standards and measurement. We must get back to setting educational standards, and we then must measure the results. Standards and measurements must apply to teachers and students alike. And the standards must be clearly aimed at producing graduates who will permit us to compete globally. I strongly urge that the Congress reinforce its efforts to insure that the nation's high school graduates can function at an effective and competitive level.

Secondly, in order to compete today and in the future, we in business need people who are fluent in the English language, have a solid background in math and science, are disciplined and reliable, have good thinking skills and are creative. Not enough of today's high school graduates have these skills. Nor do I think even large amounts of Federal funds will add to the supply. Congress ought to take the steps needed to define the appropriate levels of skills and to encourage their being taught throughout the country.

Finally, I believe that while the implementation of public education is best left at the local and State level, Congress can do much to help by funding many of the experiments being made today to improve education. There is a great deal of experimentation going on, but knowledge of it is not that widespread. And like many of society's institutions, our Nation's schools are not noted for their adaptability.

American industry is being forced to change, to become competitive. It is sometimes a very painful adaptation, but it is taking place. As a Nation, we cannot afford to ask less of our public schools. Congress, I believe, can play a critical role in directing the necessary change.

Thank you very much for this opportunity to testify. I appreciate your invitation and am willing to try to answer any questions that you might have.

Senator PELL. Thank you very much indeed.

[The prepared statement of Mr. Parry follows:]

TESTIMONY BY
CHARLES W. PARRY
CHAIRMAN AND CHIEF EXECUTIVE OFFICER
ALUMINUM COMPANY OF AMERICA

BEFORE THE
SENATE SUBCOMMITTEE ON EDUCATION, ARTS AND THE HUMANITIES

ON S.406
THE EDUCATION FOR A COMPETITIVE AMERICA ACT

MARCH 23, 1987

I am Charles W. Parry, Chairman and Chief Executive Officer of Alcoa. I was invited by Senator Pell to offer my thoughts as you consider the Education For A Competitive America Act.

In testifying last week in support of reauthorizing Chapter 1 funds for educational aid to disadvantaged children, I made the point that education is vital to business. I said that education provides business a capable work force, communities in which we can live and operate, and ultimately, with a prosperous marketplace. While I strongly support Chapter 1 funding, I am less enthusiastic about some of the proposals under the bill you are considering because I think that however well intended, they put the cart before the horse.

The nature of our competitiveness problem today is extremely complex. It involves tax policy, our budget deficit, currency instabilities, monetary and fiscal policies, and our unfortunate focus on the short term. I am convinced that industry has begun to respond, and that one indication of that response is the restructuring of industry that is getting so much attention these days. As we respond to the competitive challenge, however, I am increasingly concerned about the capability of the workforce to deal successfully with an ever more complex work environment.

In order to regain our competitiveness, we must have people who are fluent in the English language, who have a solid background in math and science, who are disciplined and reliable, who have good thinking skills and are creative. I do not think that enough of our recent high school graduates have those skills or those characteristics. Nor do I believe that even large amounts of additional federal funding is going to add to the supply.

Industry has begun to respond to the competitive threat. Old habits of thinking and old mindsets toward competition are no longer conducive to survival in today's global economy. While I sense a growing recognition of the need to change old habits and mindsets in education, I also sense an unwillingness or an inability to change the way we educate our young. The reality, however, is that unless we can improve the product of our educational system, we will be unable to compete in the world economy.

It seems clear to me that the only way we can improve the quality of education is to require more from the institution. That means setting standards, and measuring results. It means constant evaluation -- of administrators, teachers and students alike. It means continuing experimentation, greater flexibility and more creativity. Those of us in business are continually measured in the marketplace; can we afford to demand less from our nation's schools?

I do not spend much time worrying over the product of our institutions of higher education. Our colleges and universities are measured annually by the job market, and seem to be quite flexible in responding to their marketplace. It is our institutions of elementary and secondary education that give me pause. Therefore, I feel we need to concentrate on those segments of the larger educational institution.

Fundamentally, we need to assure that equal opportunity is available throughout our public school systems. Equal opportunity will continue to demand our attention. But while we pursue equal opportunity, we need to rid ourselves of the notion of equal outcome. Young people have differing levels of capability, but somehow we have lost the desire and the need to differentiate. That fact has, I think, led directly to a dilution of standards, so that we now demand less of the truly capable and more of the less capable. Egalitarianism has no place in education.

Public elementary and secondary education have always been the responsibility of the community, however defined. In most states, the role of the state has increased over time, so that now our schools are locally controlled with varying degrees of state involvement. This should not change. The role of the Federal government is properly one of overseer, of giving broad direction.

What should the Congress consider doing to assure that our young people are properly educated to deal with a new economic environment? One clear need is for leadership in identifying changes that are needed in national direction. In the area of education, Secretary of Education Bennett has been notable in this area. Another need is for clearer standards for the states and local school districts to adhere to. There is far too much confusion over precisely what changes are needed, and how best to measure their attainment. A third area of need is our continuing requirement for equal opportunity. Congress should continue to play a leading role here, because the nation as a whole will suffer if we fail to provide for those who are disadvantaged at the start.

It is not my role to suggest specific funding amounts for the bill you are considering and I am not expert enough to advise you on whether the specific targeting of monies in the bill will be effective. I strongly believe, however, that the best approach to providing future education that will make this country competitive is for Congress to help the professionals in elementary and secondary education set tough but realistic standards, and then require continued measurement to assure that the standards are being met.

I realize that it is difficult for Congress to deal with a system that is large, widespread and fundamentally controlled at the local level. But the national need is so great that ways of setting national standards must be found. Higher education is not a monolithic institution, but when Harvard decided to tignten its undergraduate curriculum, most other colleges quickly took note.

The situation calls for leadership, and that leadership, in my opinion, should come from this Congress.

Thank you again for the opportunity to present my views on this vital issue.

Senator PELL. I have had an opportunity to go over the full text of the various statements that you have submitted as well.

I would like to ask Dr. McMahon a question concerning her program of how to provide physics instruction with very little money. I wonder how that is going and how it is spreading. I know that Secretary Bennett believes and stresses very often that money and the quality of education are not necessarily synonymous. I was wondering if you would give us some more examples than you have here of how that particular program works?

Dr. MCMAHON. Well, it has been very effective. It has been led by a teacher from a local high school, Portsmouth High School, and the teachers are shown how, despite the scarcity of expensively-equipped physics laboratories, to actually put on highly-instructive demonstrations of important principles in physics, in the context of the ordinary high school classroom, using common everyday materials such as nails, rolls of coins, embroidery hoops and so on.

The interest on the part of teachers has been extremely high. We have been able to continue it in round two, and we could certainly expand it greatly if we had more funds.

Senator PELL. Is it only in one school?

Dr. MCMAHON. It is operating right now in Portsmouth High School, yes. But there is a great deal of interest on the part of teachers in other schools.

Senator PELL. Why do you say if you had more funds you could expand it? If it does not take any money, you can expand without more money.

Dr. MCMAHON. Well, I think in terms of the teachers who are part of it, they are bringing it into their own schools, that is true. But I think we could do it on other sites—and will.

Senator PELL. But why would funding be necessary? I do not follow that.

Dr. MCMAHON. I think a certain amount of expansion of it will take place without funds, but I think we can develop analogs of it as well with additional funding.

Senator PELL. Develop what?

Dr. MCMAHON. Analogs of it in other schools, with additional funding.

Senator PELL. But why would more funding be needed; this is what is not clear.

Dr. MCMAHON. Well, the support for the teacher who is doing it has come from funding, for example—and to replicate that in our other 40 high schools would take some additional funding.

Senator PELL. Couldn't it be done out of the general budget?

Dr. MCMAHON. We do have in Rhode Island an In-Service Institute, and we are able to do some of this work out of our Rhode Island In-Service Institute. But undoubtedly, the Title II funds have brought some additional, concentrated funds in mathematics and science into the State.

Senator PELL. Thank you very much.

I would think, as I say, that this is good, and if it spreads to other high schools in our own State and then goes around the country, that the beauty of this program would be that you do not need a nickel, because the common type of equipment you are talking about—nails, rolls of coins and embroidery hoops—assuming the rolls of coins will be returned to the donor afterwards. In light of this, I do not see why you would need any money to do the program.

Dr. McMahon. Well, it is largely in support of the instruction itself, conducting the instruction for the teachers from that school district.

Senator Pell. But couldn't they do this——

Dr. McMahon. Perhaps but one of the things the Title II workshop enables those teachers to do is to actually conduct high-class instruction in their high schools when they do not have the expensive support equipment.

Senator Pell. But don't teachers have one or two or three days of Teachers' Institute training?

Dr. McMahon. No longer, Senator Pell, no.

Senator Pell. They do not?

Dr. McMahon. No. And the training to which I refer takes more than one or two days. It is an instructional program that is carried on over a period of weeks.

Senator Pell. So the Teachers' Institute is no longer a part of the State's curriculum?

Dr. McMahon. Current, but we do have a Rhode Island In-Service Institute which provides some State funds for training by local school districts, but the dollars are not sufficient to the needs.

And I do think it is interesting that in our State, the interest on the part of mathematics and science teachers in instruction is very, very high, so it is an optimal time to take advantage of that interest.

Senator Pell. Thank you very much, Dr. McMahon.

Dr. Rutherford, how would you compare our technological literacy with that of other industrial nations? Do you think that that chart there is a pretty accurate index or not?

Dr. Rutherford. Well, I do not think that chart has much to say about technological literacy because we are not very clear on what that is, and I know of no measures of it.

I think what that chart tells us is that somehow, rather, the fundamental bases, as Mr. Parry pointed out, of technology transfer and advancement have to do with an understanding of mathematics and science, a command of the language, the ability to think analytically, to handle information, to learn and relearn. And those figures there, I think, would indicate that we have not the standing to be able to do that on the level we need to.

If I may go back to the question about money, because it is a tough one. You know, it is very easy, and it is even true in the individual case, that money is not necessary or does not bring reform. On the other hand, in a nation this large, you cannot get major change without money. The question is not money or not money; the question is how much properly used.

And where we are hurting most, I believe, in education are those aggregated funds that would allow us to change the enterprise as opposed to simply keeping it going. In industry, after all, they can make capital borrowing, they have other ways of getting cash that is not used for simply paying salaries or heating a building or paying loans off. And that is where somehow or other we need—

and this bill provides part of that, although I think the scale is still too small.

Senator **Pell**. I think, by "technological literacy," we mean the ability of a student to comprehend the instructions and the directions that he or she is being given.

Dr. **Rutherford**. Well, in a context of processes and apparatus and technique and so forth, not just the sort of general ability to follow instructions. There is a context.

Senator **Pell**. Mr. Parry, in connection with the changes in employment needs in your industry, do you think the ability of the young people, . . . who will be old before you are through . . . will be able to change skills as the jobs change?

I remember reading somewhere once that about every ten years, one could presume that one's job would have changed pretty radically. Would that be so in your industry, and what is your thought as to how we can cope with that problem?

Mr. **Parry**. I am not sure, Senator, we are going to have the problems with our middle-aged displaced workers today as we are going to with the younger people who are coming out of the educational system in the last 20 years, let us say. Those who came out in my generation had a good grounding in science and mathematics, those who had the aptitude for going in that direction. We do not have a great deal of problem in retraining our present middle-aged employees to adapt to the kinds of technological needs that are new to today's society and are just increasing so rapidly that we can hardly keep up with them.

We are installing a new state-of-the-art mill at Alcoa, Tennessee. We have every, single one of those individuals doing, performing very sophisticated functions that were not even thought about 10 or 15 years ago, on electronic equipment, on controls, on changing of roles, the whole gamut of opportunity. And we are finding those present-day middle-aged—and the majority of these would probably be middle-aged, being moved on into that because of seniority and the rest of it—we do not find a great deal of training problems. But we are finding problems with younger people who come out and simply cannot even communicate.

If you cannot communicate with someone else, you have a great deal of difficulty understanding the communications that are directed at you.

Senator **Pell**. Thank you very much.

I have one final question, and I will be interested in your reactions, and that is, my own view is that just as important as education is character, honesty, work habits, and things of that sort.

What can the schools do to improve character, honesty and work habits? What would be your views?

Dr. **McMahon**. Well, I think that that is generally done, Senator, in the context of good instruction. Work habits, I think, develop through good instruction, through high expectations, through good feedback to students. An important part of what happens in the instructional process is the development of good standards of performance, which have implications, obviously, beyond the instructional content.

Senator **Pell**. But aren't the public schools a little limited in what they can do in teaching character, because by their very nature for example they are public schools, and you cannot talk about God in them, et cetera?

Dr. **McMahon**. Well, there are limitations and that is an easy way to dismiss any attempt at character formation, but I think in fact there are standards of integrity, of fair play, of honesty and of hard work, which do not have to be related to any theology and therefore do not violate the standards of the public schools.

Senator **Pell**. Would either of you, Mr. Parry or Dr. Rutherford, care to respond?

Dr. **Rutherford**. I would support that and say that the schools, the faculty, the administration, by their behavior, by the standards they set, the expectations, can without preaching get the message across. But I would like to see students learn to work by working.

In every community in the land, there is work to be done. Help is needed in the hospitals. The elderly need help. There is all sorts of community work. There is no reason why children at one age should not be part of the teaching staff for the younger children. There is no reason why children should not be responsible for keeping their schools up—painted, clean, organized.

In other words, at every appropriate level we can engage the students in real work with reference to the school and the community as part of what they have to learn, which is to be responsible, to follow instructions, to put their ideas to the test. And I think the schools can bring themselves to be able to do that, without sacrificing at all the intellectual development of the young people.

Mr. **Parry**. I would agree completely with that, Senator, but I would say that it is in this area where our school system and perhaps our society—because I am not putting it all on the school system—has absolutely failed and has caused the kind of crisis that we are headed toward in the sense that we do not expect of our children that which they are capable of achieving. We do not demand it of them. We have entered an egalitarian phase in our school systems where we are afraid of differentiating between the gifted and the ungifted, and that simply happens to be a fact of life, that we are not all gifted equally when we are born, nor as we develop through our years into adulthood.

It seems to me that our school system has become enamored of the concept of egalitarianism in its output, and I simply do not think that is the road to success to achieving the competitive position of the United States in world affairs.

Senator **Pell**. Thank you very much.

Thank you, gentlemen and lady.

Senator Stafford?

Senator **Stafford**. Thank you very much, Mr. Chairman.

I apologize to these witnesses that another matter kept me away from being here until the present.

I do have a very brief statement, Mr. Chairman. Strengthening the competitiveness of American industry has become an important theme of the 100th Congress. It is gratifying to this Senator to see education move to such a prominent spot on the national legislative agenda.

Education and training programs are vital components to any successful initiatives in this area. Today's witnesses represent a diverse cross-section of the education community as well as private industry. If we are to truly improve our competitive position internationally, partnerships between schools and institutions of higher education and the business communities which surround them, must be enhanced.

The witnesses who have joined us today are in the best position to inform us about established programs in this area and how they need to be strengthened. I would like to thank them for joining us today and look forward to hearing their testimony.

And I will say to the distinguished witnesses at the table at the present time that, although I did not hear your opening statements, I will make sure that I read them.

Thank you, Mr. Chairman.

Senator PELL. Thank you.

Senator Thurmond?

Senator THURMOND. Thank you, Mr. Chairman.

I am pleased to be here today to hear your testimony and your reactions. There is no question that we are greatly challenged by increased economic competition from abroad.

The emergence of a global economy is forcing America to make many adjustments to remain competitive.

Mr. Chairman, I want to commend you for addressing the role of education in this particular area.

I am also pleased to see that the focus of this legislation is on improving existing educational programs rather than creating new ones. I believe that working within the existing framework is the more fiscally responsible course. And I want to commend the Chairman for this approach.

Now, I want to say this: some points have been brought out here about teaching character. The Chairman brought that out.

Years ago, after I taught school and coached athletics six years, I was superintendent of schools, and we instituted a particular course in character. I just felt this was so important. Now, at that time, of course, we could teach some religion; you cannot do that today under rulings of the Supreme Court. But honesty is the heart of character, and you can teach that. Nobody can object to that.

Children should be taught honesty. Every day, I pick up the papers, and I see where a dishonest act is committed—gypping the government, cheating the Government, cheating individuals, cheating the fellow man. There is no reason that cannot be instituted, and there is nothing more important than that because that applies across-the-board to everything; all the way through life, it should be stressed.

Another course we instituted was a health course. I had every child examined by a doctor and a dentist to ascertain their health, and I got them to examine them free. The doctors later gained by it because of the defects they found. The children went to the doctors and had those defects corrected; they went to the dentists to have decayed teeth repaired and other things.

But I think that all enters into the economic situation, and I think public schools ought to do that.

I was impressed with what you had to say, Dr. Rutherford, I believe, about the children working. I have often wondered if the schools should not use the children to do some work. A lot of children are not taught to work today; they want to play all the time.

Why can't they be janitors? No honest work should be beneath anyone. A great many are used as bus drivers. Why can't they be used in many capacities around the schools? It would save the schools from employing a number of people and to use those resources for other purposes.

I think there are many things that can be done. Now, I realize the Federal government cannot go into every facet of education; there is not authority under the Constitution for it. But these are things that the local schools and the State schools can do. If I were a State superintendent of education, I would stress the importance of this, and not just depend on the Federal government, just depend from getting money from here. We do not have the money, to be frank with you. Our debt is over $2 trillion; interest is the third-largest item in the budget. There is not a State in the Nation that is not better off financially, according to the ratio of resources, than the Federal Government; every State is better off in proportion than the Federal Government. And I think we have got to realize that.

But I think it is important at the Federal level to concentrate and focus on these things, because they ought to be done. Now, the Federal Government can do some things and does do some things. Vocational education is extremely important; that enters into the field of national defense, and I think there is a basis for that. And where we have a basis for it, it is well to do it insofar as we are able to do it.

But to my way of thinking, the schools are greatly challenged today. I am not too sure we are getting our money's worth out of the schools. There is probably a good deal of administrative work that might be left off, there is probably some bureaucracy that could be left off. And I think we need to get down to the fundamentals.

A great many people did not go to college. I could name a number of United States Senators and Governors from my State who did not go to college—but they worked, they educated themselves. They read books—they even read Shakespeare. I recall the history of one Senator from my State who did not go to college. He was also Governor of the State, and eventually became a United States Senator. He could recite Shakespeare over and over. He was willing to work, he was willing to learn. And I think we have got to do all we can to motivate students. If you motivate a person, he can do anything. The world cannot stop him if you motivate him; he will want to do things. And if the schools can do these things, they have really done something worthwhile. If they can instill character, if they can help to look after the health, if they can teach them to work and motivate them, the schools have a bright future, and they can render a great service, in my judgment, along this line.

Thank you, Mr. Chairman.

Senator PELL. Thank you very much, Senator Thurmond. You made some very valid points. We are both, more often than not, pleasantly surprised as we find we have a similar viewpoint.

Thank you very much indeed, Dr. McMahon, Dr. Rutherford, and Mr. Parry, for your testimony.

Our next panel includes: Dr. Dale Parnell, President of the American Association of Community and Junior Colleges; Dr. Darrell Parks, State Director, Vocational and Career Education, Ohio Department of Education; Dr. Claire Gaudiani, Assistant Director of the Joseph Lauder Institute of Management and International Studies, University of Pennsylvania; and Dr. David Edwards, Executive Director, Joint National Committee for Languages.

We hope the witnesses will confine their remarks to a brief statement, leaving more time for questions afterwards. Shall we start with Dr. Parnell?

STATEMENT OF DR. DALE PARNELL, PRESIDENT, AMERICAN ASSOCIATION OF COMMUNITY AND JUNIOR COLLEGES; DR. DARRELL PARKS, STATE DIRECTOR, DIVISION OF VOCATIONAL AND CAREER EDUCATION, OHIO DEPARTMENT OF EDUCATION; DR. CLAIRE GAUDIANI, ASSISTANT DIRECTOR, JOSEPH LAUDER INSTITUTE OF MANAGEMENT AND INTERNATIONAL STUDIES, UNIVERSITY OF PENNSYLVANIA; AND DR. J. DAVID EDWARDS, EXECUTIVE DIRECTOR, JOINT NATIONAL COMMITTEE FOR LANGUAGES

Dr. PARNELL. Thank you, Mr. Chairman, Senator Stafford, members of the Committee.

My name is Dale Parnell, and I am President of the American Association of Community and Junior Colleges.

It is a pleasure to be here today to speak to you on behalf of our Joint Commission on Federal Relations of the American Association of Community and Junior Colleges and the Association of Community College Trustees.

There is an ancient Chinese proverb that says it is unwise to attempt to leap a chasm in two bounds, and that is really a tremendous challenge here today for me to leap this chasm in one bound. And I think you even have a greater challenge in trying to leap the chasm of American competitiveness in one bound. I do not think we have the time to leap it in two bounds.

Today I would like to begin by focusing attention on the program which bears the Chairman's name, the Pell Grant Program. It is the greatest human resource development program we have going today in our country. And I thank you, Mr. Chairman, for your work on that, and I also thank you for introducing your excellent bill, Senate Bill 406, Education for Competitive America.

Community colleges are particularly interested in the $100 million authorized under Part C, Title III, of the Carl Perkins Vocational Education Act and also the Training Technology Transfer Act. We urge you to also consider adding some dollars to Part E, for matching grants for technician education and training.

We have found in our own Association that by small amounts of money and trying to leverage these by matching grants, that we can stretch the Federal dollars, we can stretch all kinds of dollars, in other ways, and I urge you to take a look at that particular Part E, which is already in the law but unfunded, which calls for matching grants for technician education and training.

As the Chairman and the Committee know so well, unless we confront the issues now, by the year 2000, the American economy will be hamstrung by a skilled worker shortage of immense proportions and by debilitating work force problems. One of them will be a sharp shortfall between the skill levels of entering workers and the demands of the workplace. If the present pace of underskilled workers entering the work force continues, their numbers will far exceed the skilled workers and the American economic machine will grind to a speed that will permit our national competitors to sprint far beyond us.

In fact, I believe we are losing our competitive edge. And as is the case now, in the year 2000, America will have enough jobs to employ every citizen who wants to work, who is qualified. They may not have the basic skills—I worry that they will not have the basic skills demanded of an information technological age.

There is really only one good solution to this problem, and that is education and training. America must fire up every resource available to prepare the new generations of workers for the workplace of the future. Our current resources are more than adequate to fulfill these demands, but they must be energized and funded.

I might note here that some 23 States have made midyear cuts this academic year in their budgets for higher education and indeed, I suspect for education generally. But since higher education tends to be funded predominantly from State sources, over half of our States are in grave financial difficulty as it relates to funding the very programs you are talking about today.

Thucydides, that ancient philosopher, stated a long time ago, and I quote: "A nation that draws too broad a difference between its scholars and its warriors will have its thinking done by cowards and its fighting by fools."

Two thousand years later, John Gardner made a similar statement: "The society which scorns excellence in plumbing because plumbing is a humble activity and tolerates shoddiness in philosophy because it is an exalted activity will have neither good plumbing nor good philosophy. Neither its pipes nor its theories will hold water."

Mr. Chairman, I would like to summarize my statement. I think we need in this country the flag to be raised, a very clear statement coming from Congress and this Committee and the leaders of this country, that the United States will develop the most productive and competitive work force in the world. What a great goal. And it is a goal, and we can do that. But we will not do it in fragmented ways.

This is a highly decentralized educational system in this country, and we need the clear flagship of a very clear goal in this country.

I believe there is a compelling Federal interest in this subject. Job opportunities do not start or stop at State lines. We also know that trade and economic issues do not start and stop at State lines or even national lines.

The greatest single barrier to the long range economic health of our country will be the uneducated, untrained individuals with no skills to sell.

How long can we continue to waste the human resources of our country? Out of 45 million students in elementary and secondary education, at today's rate, 11 million of them will not complete high school. The school superintendent in Boston the other day announced that they now have more high school dropouts than they have high school graduates. And we in the community colleges know that because they come knocking on our door five years later as they grow up and say, "Help—what do I do with the rest of my life?" Do we always have to be on the remedial, catch-up end of everything?

I encourage you in this bill to look at ways to encourage cooperation between high schools and community and technical and junior colleges and the vocational education institutions of the country.

Furthermore, another statistic—75 percent of all job classifications in the future will require some form of post-secondary education and training. It is about 50 percent today. What are we going to do about that, and how can we motivate high schools and colleges to get together? We cannot do it two years in high school. We cannot do it two years in a community college.

The other fact is that 80 percent of the American population do not hold the baccalaureate degree. And yet we have such a focus on the baccalaureate degree—and I do not disparage that—we have such a focus that we tend to overlook that great host of Americans who are not likely to earn a baccalaureate degree, and yet they need better education, better training than they have ever needed before in our history.

You have a great resource across the nation in the community, technical and junior colleges of the land, that are ready and willing to help you implement Senate Bill 406 and help develop the most productive and the most competitive work force in the world.

Thank you.

Senator PELL. Thank you very much, Dr. Parnell.

[The prepared statement of Dr. Parnell follows:]

Testimony

on

Enhancing United States Economic Competitiveness

by

Dale Parnell
President
American Association of Community and Junior Colleges

for the
Joint Commission on Federal Relations
of the
American Association of Community and Junior Colleges
and the
Association of Community College Trustees

Subcommittee on Education, Arts and Humanities
U.S. Senate
March 23, 1987

EXECUTIVE SUMMARY

The overall goal of Congress should be to develop the most competitive and productive workforce in the world. The largest single barrier to the economic health of the nation in the information age will be the unskilled worker. To enhance American competitiveness in the global economy, the AACJC/ACCT Joint Commission on Federal Relations urges that -- in addition to full funding of the Pell Grants and permanent extension of employee educational assistance and the New GI Bill and fund Title III, Parts C and E of Carl Perkins Vocational Education Act -- Congress:

1. Ensure the job training and technical education necessary to make the American skill base the most competitive in the world, including comprehensive retraining for the nation's dislocated workers.
2. Provide education, industry and small business with accelerated access to the technology emerging from federally sponsored research.
3. Establish facilities and equipment modernization programs in all federal agencies responsible for workforce training.
4. Reduce both the functional illiteracy and high school dropout rates by at least 50 percent by the year 2000, thus freeing education and the workforce training infrastructure of the pressing demands for remediation.
5. Make unemployment compensation recipients eligible for full-time training; overhaul the U.S. Employment Service to help it link more effectively to education and training institutions and employer needs.

A Shifting Population Mix

Age Groupings as a Percent of the Total Population

Year	14 to 17	18 to 24	over 65
1987	6.2%	12.0%	12.0%
1990	5.2	10.3	13.0
2000	5.7	9.2	14.0
2010	5.3	8.2	25.0

o Fewer younger workers.
o Majority of new entries into the workforce will be from immigrant and native disadvantaged backgrounds, and if present patterns hold, they will be inadequately educated and trained.
o More older workers will be leaving the workforce.
o A looming skilled worker shortage in many areas.
o By 1995 75% of all job classifications will require some form of postsecondary education and training. A big education and training challenge awaits us.

Mr. Chairman and Members of the Committee:

My name is Dale Parnell. I am President of the American Association of Community and Junior Colleges. It is a pleasure to be here today speaking to you on behalf of the Joint Commission on Federal Relations of the American Association of Community and Junior Colleges and the Association of Community College Trustees.

Today I would like to begin by focusing attention on the program which bears the Chairman's name -- the Pell Grant program. It is the greatest competitive program we have. I would further like to congratulate the Chairman on his excellent bill, S. 406, Education for a Competitive America. Community colleges are particularly interested in the $100 million authorized under Part C, Title III of the Vocational Education Act and the Training Technology Transfer Act.

As the Chairman and the Committee know so well, unless we confront the issues now, by the year 2000 the American economy will be hamstrung by debilitating workforce problems. One of them will be a sharp shortfall between the skill levels of entering workers and the demands of the workplace. If the present pace of underskilled workers entering the workforce continues, their numbers will far exceed skilled workers and the American economic machine will grind down to a speed that will permit our national competitors to sprint far beyond us. We will lose our competitive edge, an edge that has been slowly eroding over the past decade.

As it is the case now, in the year 2000 America will have enough jobs to employ every citizen who wants to work, but the workers may not be capable of filling the jobs. They may not have the basic skills demanded by the jobs.

There is only one solution to this problem -- education and training. America must fire-up every resource available to prepare the new generations of workers for the workplace of the immediate future. Our current resources are more than adequate to fulfill these demands, but they must be energized, they must be supported both with finances and with leadership that is sensitive to real needs, and we must be discrete in selecting the desired results in a manner that is both cost effective and expert.

Thucydides stated a long time ago, "A nation that draws too broad a difference between its scholars and its warriors will have its thinking done by cowards and its fighting by fools." Two thousand years later, John Gardner said, "The society which scorns excellence in plumbing because plumbing is a humble activity and tolerates shoddiness in philosophy because it is an exalted activity will have neither good plumbing nor good philosophy. Neither its pipes nor its theories will hold water." Mr. Chairman, S. 408 helps bridge the gap between today's scholars and warriors and plumbers and philosophers. Let me continue an historical perspective.

When the Second World War was over, the euphoria that accompanied its end had been replaced by an unsettled peace. Europe was in economic chaos. Commerce between cities and the agricultural areas had deteriorated badly. There was serious doubt that Western Europe had the manufacturing capability, the foreign exchange or the social will to repair the war's devastation. There was a sense of imminent collapse. And there was the specter of Russian communism and Stalin.

In the United States a plan for action was crystalizing. The Secretary of State went to Harvard to give a commencement speech on June 5, 2947. George Marshall said on that occasion:

> The remedy lies in breaking the vicious circle and restoring the confidence of the European people in the economic future of their own countries and of Europe as a whole....It is logical that the United States should do whatever it is able to do to assist in the return of normal economic health in the world, without which there can be no political stability and no assured peace.

The emphasis of the Marshall Plan was on self-initiative and cooperative arrangements between governments and other entities. Marshall's speech reflected an obvious but vital understanding of human motivation. Incidentally, it seems more than mere coincidence to us that 1947 was the same year that President Truman's Commission on Higher Education made its report urging the proliferation of "community colleges" to make postsecondary education accessible to all Americans.

On June 22, the Harriman Committee was established by President Truman. The Harriman Committee was an important step in building the coalition that would be critical to the development of the Marshall Plan, to the passage of the enabling legislation on April 3, 1948, and to the revitalization of the Western European economy.

The Marshall Plan is a constructive example of how the United States can regain economic strength and a competitive edge for two reasons. First, it was the result of a coalition of related enterprises based on a commitment to cooperation, compromise and consensus in the nation's interest. Second, it worked because, as in the reconstruction plan for Japan, it was essentially a balanced economic policy that focused on both investment and consumption and was based on self-initiative and cooperation.

In addition to the Marshall plan, two other public policies offer constructive examples of why America was strong in the immediate postwar era. The first was the Employment Act of 1946. It was based upon another simple but very powerful idea: jobs for all those willing to work, based on government economic policies to increase production and purchasing power. That idea caught the public interest and led to a postwar boom based primarily on automobile sales and housing expansion. Consumption led to jobs, which led to a rise in the standard of living, which, in turn, made more consumption possible. There was a continuous upward cycle of economic expansion.

There was, however, a flaw in the Employment Act of 1946. Because of the circumstances of the times, the Act did not create a balanced economic policy. Productivity was not monitored. Policymakers did not keep a long-term watch on the supply side of the economic equation. Further, investment was not linked to job creation and full employment.

The second policy started with the Hoover Commission. The first Hoover Commission helped establish the President as manager of the executive branch. The Hoover Commission resulted in the Reorganization Act of 1949 which President Truman used to strengthen the Presidency. He established an unbroken line of responsibility from the President to his department heads.

Thus, entering the 1950's, America had a strong bipartisan foreign policy, a domestic economic policy, and a sound framework of government. At that time we were the world leaders in trade, energy and productivity.

By the end of the Johnson - Nixon years, the spirit of cooperation, compromise and consensus that had made the Marshall Plan, the Employment Act and the Hoover Commission successful was largely gone from America. Our post World War II economic strength was ebbing.

Now, in the mid-1980's the Congress and the country seem at last to be buckling down to the struggle of reversing this trend. This hearing is welcome evidence of this. Competitiveness is on the top of the mind of every Member of Congress I talk to.

I believe that we can win the struggle if we establish a national coalition composed of employers, government, education, labor, the private sector with the same spirit of cooperation and teamwork that typified the Marshall Plan if we employ the key directions established in the Truman years.

That spirit has endured at least in part in our country's commitment to universal access to postsecondary education, with which community colleges and, more recently, Pell Grants have become synonymous. The community college movement credits President Truman with providing the impetus that has made two-year colleges accessible to residents of nearly every Congressional district during the last generation and credits you, Mr. Chairman, with making it possible for economically disadvantaged students to have educational opportunity.

The universal access to higher education envisioned in 1947 by the Truman Commission on Higher Education was, at that time, a radical goal. To quote from this important document:

> Equal educational opportunity for all persons to the maximum of their individual abilities and without regard to economic status, race, creed, color, sex, national origin, or ancestry is a major goal of American democracy. Only an informed, thoughtful, tolerant people can maintain and develop a free society. Equal opportunity for education does not mean equal or identical education for all individuals. It means, rather, that education at all levels shall be available equally to every qualified person....The Commission does not subscribe to the belief that higher education should be confined to an intellectual elite, much less a small elite drawn largely from families in the higher income brackets, nor does it believe that a broadening of opportunity means a dilution of standards either of admission or of scholarly attainment in college work. ...The danger is not that individuals may have too much education. It is rather that it may be either the wrong kind for the particular individuals or education dominated by inadequate purposes.

Though community colleges have emerged in the last decade as the largest distinct branch of higher education, serving nearly five million learners in formal credit and degree programs and a number nearly equally as large in non-credit courses, we feel our potential is under-utilized in meeting the global challenge. Our success and popularity alone suggest that we are ready to shoulder larger tasks, if there is a cohesive national strategy for helping us do so.

Some facts suggest that we are the best equipped to handle the job at hand:

--Three out of four U.S. high school students are not likely to earn a baccalaureate.

--A full 80 percent of the adult population or four out of five adults do not hold the baccalaureate degree in our country today.

--Twenty-seven percent, or one out of four high school students do not complete high school. At that rate, out of some 45 million students in elementary and secondary education, 11 million students will not complete their high school program.

--In 1982 the unemployment rate among the 20- to 24-year olds with less than a high school diploma was 32 percent. The rate among high school graduates was 15 percent, while the unemployment rate for those with one to three years of college and those with four years of college or more, were nine percent and six percent respectively.

--Jobs requiring some college education for entry are projected to increase by 45 percent over the next ten years.

--Some postsecondary education or training is now required for entry into about 50 percent of all job classifications. By the mid 1990's it is predicted that 75 percent of all job classifications will require some additional preparation beyond high school.

--Community colleges are now uniting with high schools to offer Tech Prep/Associate Degrees based on math, science, literacy and technical education. The program includes the last two years of high school and the first two years of college. It is not designed to replace the college prep/baccalaureate degree program, but to work alongside it.

--Two-year colleges are expanding their roles in job training, upgrading and retraining. Many of our colleges say to business or industry, "Yes we will train people for new jobs that you are creating so that on the day you are ready for employees we will have people trained and ready to go to work."

--Two-year colleges have put forth a major effort to address the critical adult literacy needs of the country.

--To expand further the role of two-year colleges in job development and training, many of our colleges are aggressively supporting small business and entrepreneurial efforts.

There are many exemplary programs in two-year colleges across this country that are making significant strides in meeting educational needs so that our citizens can compete more effectively in a rapidly changing job structure. These efforts are greatly limited by the availability of funding support both at the local and national levels.

My desire to join this panel today is to assure the Congress that our colleges stand ready to shoulder whatever tasks you find appropriate to our role in this struggle. I read recently that the community, technical and junior colleges are America's best kept secret. Today, we want to lift the cloak of secrecy. Our two-year colleges are poised to charge forward to respond to the needs which can be met through postsecondary education and training.

Certainly we do not make this offer lightly. We think it appropriate for a number of reasons. Outside industry itself, community, technical and junior colleges have become the country's largest source of well-trained technicians and high technology training.

This underscores a point I have already made: if the employer community and the educational community are going to meet the global challenge, there ought to be a national strategy to help us do it. Resources can be more effectively targeted toward the priorities dictated by this struggle. And we look to this Committee and the Congress for such policy.

Mr. Chairman, thanks to Congress and the vision of this Committee, among others, some of the building blocks of that strategy already are in place. Our Joint Commission points to three that are particularly vital. In fact, the highest priorities of our Commission for this Congress center on these three programs. Our priorities are:

1. Full funding of the Pell Grants at the level the new Higher Education Act provides for FY'88 -- i.e., a cost allowance and maximum grant of $2,500 each. As global competition and changing technology heighten the skill demands of employment, access to postsecondary training increasingly becomes the foundation of the American dream. We cannot thank this Committee enough for your vigilant support of universal access and Pell Grants.

2. Extension of Tax Code Section 127 (Employee Educational Assistance) as permanent law. Again, if we are to meet the challenge of global competition, it would be sheer folly to strip working Americans of this incentive to pursue training and retraining.

3. **Extension of the New GI Bill as permanent law. We understand that Chairman Montgomery's** bill has been introduced with 180 cosponsors. The New GI Bill is raising the general quality of military enlistees and enhancing the national skill base, while it reduces the costly competition among industry, education and the military for a declining flow of high school graduates.

In addition, the Congress struck other blows for competitiveness when it wrote Part C, Adult Training and Retraining and Part E, High Technology Business-Industry Partnerships in Title III of the Carl Perkins Vocational Education Act in the 98th Congress and the revamped Titles I, Postsecondary Programs for Nontraditional Students, and Title XI, Partnership for Economic Development and Urban Community Service in the Higher Education Act in the 99th Congress. Again let me say, we applaud, Mr. Chairman, what you have accomplished in S. 406, particularly funding Title III of the Perkins Act at $100 million. If ever there were a time when funding of these excellent programs were necessary, it would seem to be now.

In addition, Mr. Chairman, we are submitting for your consideration some language for three ideas. The first would provide for replication models for technical education programs designed to improve the quality of education for America's technically trained workforce. The funds would be used to gather, organize and disseminate information on innovative programs designed to enhance skills at institutions of postsecondary education and secondary schools; to develop skills among individuals who are now facing or likely to face job dislocation; enhance basic literacy skills; and involve the business community in planning and offering employment opportunities to the trained workforce.

The second idea asks the Secretary to gather, organize and disseminate information on innovative programs that provide special child care services for the disadvantaged; special programs for students whose families are engaged in migrant and seasonal farm work; special programs for students from disadvantaged backgrounds; and provide summer programs for at risk youth from elementary and secondary schools.

Our third idea would involve small competitve grants which would function as seed money to promote partnerships between education, business and government at all levels -- partnerships which would result in the development of training programs related to economic and international competitiveness, the acquisition of equipment, the exchange of experts, and the dissemination of information on effective models.

In sum, Mr. Chairman, through the kind of cooperation, compromise and consensus that created the Marshall Plan, the Hoover Commission and the Employment Act, our nation, our people, can recapture their competitive edge. In education, there are many successful programs already on the books that enhance our global competitiveness. The federal government alone cannot create programs which will make America competitive. However, the federal government can provide the impetus, through policies and strategies that boost individual motivation and strengthen partnerships among disparate groups who unite around the common goal of greater national competitiveness.

Community colleges look to the year 2000 when three-fourths of the new entrants in the workforce will be minorities, women and immigrants. Community colleges look to the year 2000 when, as Secretary Brock says, "There will be a job for every qualified person in America.[1]" Will we have the workforce we need? The thorny problems of at risk populations, dropouts, illiteracy, teen pregnancy and drugs in our society seem to continue to propel us toward a negative answer.

We believe a positive answer can be found in the policy Congress may propound to tie opportunities in technical education to the skill demands of the global economic challenge. Community colleges are already a very important national resource for joining training with need. Yet we can do more through a national strategy that recognizes our potential to sharpen and expand technical education.

In closing, Mr. Chairman, we might add that we have come up with a summary of five ideas and concepts by which we believe the community college potential could be used to greater advantage in tackling the global challenge. They are:

1. Ensure the job training and technical education necessary to make the American skill base the most competitive in the world, including comprehensive retraining for the nation's dislocated workers.

2. Provide education, industry and small business with accelerated access to the technology emerging from federally sponsored research.

3. Establish facilities and equipment modernization programs in all federal agencies responsible for workforce training.

4. Reduce both the functional illiteracy and high school dropout rates by at least 50 percent by the year 2000, thus freeing education and the workforce training infrastructure of the pressing demands for remidiation.

5. Make unemployment compensation recipients eligible for full-time training; overhaul the U.S. Employment Service to help it link more effectively to education and training institutions and employer needs.

Mr. Chairman and Members of the Committee, I am honored to have the opportunity to share these thoughts with you. With your continued leadership and support, America's 1,200+ community, technical and junior colleges can become a vehicle through which this country's citizens can meet the challenges of global competition.

Senator PELL. We will next hear from Dr. Parks—and I would add here that Senator Metzenbaum is very disappointed that he cannot be with us to introduce Dr. Parks, who is from his State, and I would ask that his introductory statement be inserted in the record at this point.

[The prepared statement of Senator Metzenbaum follows:]

FROM SENATOR METZENBAUM

INTRODUCTION FOR DARRELL PARKS

MR CHAIRMAN:

I'm very sorry that I can't be with you this morning to welcome in person Dr. Darrell Parks, who is doing such good work as Ohio State Director of Vocational and Career Education. I'm pleased that he is able to appear before the Subcommittee to share some of his experiences with the many excellent vocational training programs being conducted in Ohio schools. I know his insights will be very valuable to the Subcommittee as we consider legislation to help American workers acquire the skills needed to compete in a changing world economy.

Senator PELL. Dr. Parks?

Dr. PARKS. Thank you, Senator Pell, Senator Stafford, Members of the Subcommittee on Education, Arts, and Humanities.

My name is Darrell Parks, and I am speaking as Director of Vocational and Career Education with the Ohio Department of Education in Columbus.

My purpose here today is to comment on the vocational education component of S. 406, entitled "The Education for Competitive America Act."

First, I want to state that the sponsors of S. 406 are to be applauded for their initiative in introducing this piece of legislation. In my judgment, enhancing the Nation's productivity is paramount to its economic survival.

Overseas, the United States is now taking a beating in many international markets that were once dominated by American manufacturers. Our trade deficit is at an all-time high. In the 1980s, the U.S. has had to struggle with a shrinking margin of technological superiority and diminished gains in productivity.

Just last year, while U.S. manufacturing was growing at 3.5 percent, Japan was experiencing a 9.5 percent increase in output per hours worked, and West Germany's output increased by 4.9 percent on a comparable scale.

It is the adult working population that I submit to you that vocational education can play a key role in productivity enhancement. Vocational education in Ohio has been a primary provider for training the adult population. Specifically, it trains, retrains and provides upgrading skills for the unemployed, the underemployed, and the employed adult. It assesses and meets the needs of the existing business and industrial community while also fulfilling the training needs of new and expanding businesses and industries. It provides programs designed to enhance the quality of work life. And it provides both job-readiness and employability skill training.

The end result of such a system of training is a quality program where both personal and industry needs are met. As evidence of such successes, note some 1985–86 Ohio facts.

Students enrolled in adult vocational education totalled 55,397 in full-time programs and 236,973 in part-time programs. Unemployed workers enrolled in adult vocational education were reemployed after training at a 95.7 percent rate. For every dollar invested by the State and Federal Government in adult vocational education, over $54 were returned in cost savings and increased tax revenues. Skill training is available to 100 percent of Ohio's adult population and the average wage for adults completing a full-time vocational education program was $7.70 an hour. And finally, employers gave high ratings to adult vocational education graduates. Evaluations indicated that 87.4 percent of the employer respondents rated work attitude as outstanding, and 86.6 percent rated work quality as outstanding.

A more recent development on the Ohio adult vocational education scene has been the evolving partnerships with the private sector for customized training. Examples include a program with UAW Ford at the Great Oaks Joint Vocational School in Cincinnati to assist laid off workers; the High Technology Center at Cuyahoga Valley JVS where businesses such as TRW, Ameritech and the Federal Reserve Bank have employees trained in CNC, data base, spread sheet and computer-aided design programs; a cooperative training program with the DANA Corporation at nine selected vocational sites to train jobbers, technicians, counter and outside salespeople in the latest technological advances in chassis systems; the concept of adopt-a-school by the Goodyear Tire and Rubber Company; the cooperative training venture at Licking County JVS with General Motors, and the widescale training in statistical process control for manufacturing firms throughout Ohio.

The financial commitment to sustain such a comprehensive and diverse adult vocational education program in Ohio is substantial. In 1985-86, the combined Federal-State dollar investment in program support amounted to $16.6 million. This investment translates into a per-participant cost of $243.80 for full-time adult vocational educational participation and $11.01 per part-time enrollee.

As significant as this investment appears to be, however, there is a very real danger of losing our momentum. Technological change, worker dislocation and foreign competition are occurring at unprecedented rates. The authorization of $100 million in S. 406 to fund Part C of Title III in Carl D. Perkins Vocational Education Act would aid dramatically in addressing the adult worker training needs in this country.

In Ohio, we have a comprehensive and proven system for adult worker training and retraining already in place. Successful and positive results are a hallmark of our experiences to date.

Vocational education in Ohio is addressing the needs of the worker adversely affected by foreign competition; is preparing the unemployed and underemployed to access and advance in new, expanding and/or export-related industries and business; is working with current employees to make American business and industry more competitive on a global scale, and is accommodating the occupational skill needs of individuals for entry into the advancement in high-tech occupations.

I believe that our experiences in Ohio can be mirrored in other vocational education programs and systems across the Nation. I submit that investing in an already proven and functioning system for training and retraining is prudent fiscal management and will virtually assure a positive return on the investment for the Nation's economy and its workers.

I encourage your pursuit of this important and timely act, and I thank you for the opportunity to share my views.

Senator Pell. Thank you very much indeed, Dr. Parks.

[The prepared statement of Dr. Parks follows:]

TESTIMONY FOR SENATE SUB-COMMITTEE ON EDUCATION ARTS AND HUMANITIES
MARCH 23, 1987

Presented by:
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TESTIMONY FOR SENATE SUB-COMMITTEE ON EDUCATION
ARTS AND HUMANITIES

MARCH 23, 1987

Mr. Chairman, members of the Senate Sub-Committee on Education, Arts and Humanities:

My name is Darrell Parks and I am speaking on behalf of myself as Director of Vocational and Career Education with the Ohio Department of Education in Columbus. My purpose here today is to comment on the vocational education component of S.406 entitled "The Education for A Competitive America Act" and I thank you for inviting me to share these remarks before you.

First, I want to state that the sponsors of S.406 are to be applauded for their initiative in introducing this piece of legislation. In my judgement, enhancing the nation's productivity is paramount to its economic survival.

Overseas, the United States is now taking a beating in many international markets that were once dominated by American manufacturers. Our trade deficit is at an all time high. In the 1980's the U.S. has had to struggle with a shrinking margin of technological superiority and diminished gains in productivity. Just last year, while U.S. manufacturing was growing by 3.5

percent, Japan was experiencing a 9.5 percent increase in output per hours worked and West Germany's output increased by 4.9 percent on a comparable scale.

Perhaps these general economic and productivity conditions are best summarized in the Carnegie Foundation's Task Force Report on Education and the Economy:

> America's ability to compete in world markets is eroding. The productivity growth of our competitors out-distances our own. The capability of our economy to provide a high standard of living for all our people is increasingly in doubt. As jobs requiring little skill are automated or go offshore and the demands increase for the highly skilled, the pool of educated and talented grows smaller and the backwater of the unemployable rises.
>
> Economic changes will affect the adult working population, who will be required to function in a world of work that will demand continuous training and retraining, constant adaptation to new conditions and new competition, and frequent and creative applications of new technologies to old products and services. When technological change or shifting competition results in job elimination, workers will have to be retrained for new careers.

It is with the adult working population that I submit to you that vocational education can play a key role in productivity enhancement. While education and training are not cure-alls for economic problems, they can help. Schools don't deal with things, they deal with people. And significantly, analysis of data as far back as 1919 consistently shows that human factors are the major source of growth in individual earnings, institutional productivity and national income.

The Ohio Department of Education's Division of Vocational and Career Education has been a primary provider of the training needed by Ohio's adult population. Specifically, adult vocational education in Ohio

...trains, retrains and provides upgrading skills for the unemployed, underemployed or employed adult. This may include people who have completed or discontinued their formal education and want preparation to enter the labor market, as well as those adults who want to learn new skills to stay employable.

...assesses and meets the needs of the existing business and industrial community while also fulfilling the training needs of new and expanding businesses and industries.

...develops customized training programs to meet the specific needs of a particular business or industry.

...provides programs designed to enhance the quality of work life.

...provides both job readiness and employability skills, as well as manipulative and related information allied to a specific occupation.

The end result of such a system of training is a quality program where both personal and industry needs are met.

As evidence of such successes, I have included in my formal statement some 1985-86 facts regarding adult vocational education outcomes in Ohio. Time will not permit me to share all of the outcomes with you, however, I would like to mention some of the more significant accomplishments.

* Students enrolled in adult vocational education total 55,397 in full time programs and 236,973 in part-time programs.

* Unemployed workers enrolled in adult vocational education were re-employed after training at a 95.7% rate.

* For every dollar invested by the state and federal government in adult vocational education, over $54.00 is returned in cost savings and increased tax revenues.

* Skill training is available to 100% of Ohio's adult population.

* Targeted populations such as dislocated workers, displaced homemakers, and the economically disadvantaged account for one-third of the enrollment in full time programs.

  Average wage for adults completing full a time adult vocational education program is $7.77 per hour.

* Vocational education served 905 adults in Ohio's correctional institutions.

* Last year 7,855 adults were enrolled in employability/job instruction programs. Of those adults completing the program 3,881 were determined job ready, 2,265 were placed in skill training and 1,057 were referred to ABE for basic literacy skills.

- Programs designed to help employees be more productive in both their work and family life served 2,511 adults during the past year.
- Family life programs referred 3,722 adults in need of special services to appropriate agencies.
- A total of 428 institutions and on-the-job training programs were reviewed and approved for veterans training.
- Employers give high ratings to adult vocational school graduates. Evaluations indicate that 87.4% of the employer respondents rate work attitude as outstanding and 86.6% rate work quality as outstanding.
- Adult students in Family Life programs total 12,935 with 1,252 of the total being male. Successful completion of Parent Education resulted in an estimated $735,400 of community savings because children were returned home from foster care due to improved home environments. Of the children enrolled in the Parent Education and Nursery program, 81.7% made progress toward normal developmental tasks.

A more recent development on the Ohio adult vocational education scene has been the evolving partnerships with the private sector for customized training. Business and industry enter into cooperative training ventures with local vocational education districts to respond to diverse training needs. Requirements for training range from career counseling and retraining for the laid-off worker to the upgrading of the employed worker's skills and the addressing of changes brought about by new technologies. Examples of such cooperation, commitment and involvement include:

* A program with UAW-Ford at Great Oaks Joint Vocational School to assist laid-off workers through a transition period with career counseling, career guidance and long term skill retraining.

  The Ford/United Auto Workers (U.A.W.) Re-employment Assistance Center (RAC Center) was opened in March of 1986 as a result of Ford's decision to lay off 1,000 workers. Of those 1,000 employees, 400 chose early retirement. The remaining 600 employees were given the opportunity to use the services of the RAC Center for career counseling, career guidance and long term skill training.

  The Ford ASSET program at Great Oaks was developed to train individuals to be service advisors for Ford Dealerships in the Cincinnati area. The program consists of six weeks of training followed by six weeks of co-op work experience for two years of total training. The first class, which is scheduled to graduate in October 1987, has 12 enrollees, all of which are laid-off U.A.W. members. The second class, which is scheduled to graduate in July 1988, has 16 enrollees. All 28 students are currently employed across 12 Ford Dealerships in the Cincinnati area.

* The High Technology Center at Cuyahoga Valley JVS where business such as TRW, Ameritech and the Federal Reserve Bank have employees trained in CNC, data base, spread sheet and computer-aided design programs.

* The upgrading in service technology for employed Ford dealership mechanics from Lucas, Wood, Ottawa, Fulton and Sandusky counties through Penta JVS.

* The donation by the General Motors Corporation of 112 V-6 engines to 42 schools. The acquisition of these engines will allow secondary and adult students to be trained in the newest automotive engine design and repair technology.

* A cooperative training program with DANA Corporation at nine selected vocational sites to train jobbers, technicians, counter and outside sales people in the latest technological advances in chassis systems. Vocational instructors for the program were trained during a special week-long school at the DANA Corporate training facility. The Ohio program is a national pilot for the DANA Corporation with eventual implementation in all fifty states.

- The concept of adopt-a-school currently being considered by the Goodyear Tire and Rubber Company. Under the plan Goodyear is considering adopting one or more automotive technician programs from a vocational center and providing employment for graduates of the program at Goodyear service centers. Possible expansion of the program may include the vocational center providing upgrade training to current Goodyear automotive technicians.

- The cooperative training venture at Licking County JVS where necessary skills training will be provided to General Motors mechanics to service the sophisticated electronic components of new automobiles. Of the 69 GM regional training sites in the nation, Licking County JVS is the only vocational school to serve as a training center.

- The widescale training in statistical process control (SPC) for manufacturing firms throughout Ohio. Statistical process control enables workers to build parts that will meet 100 percent of the customers' requirements. This new concept of quality assurance increases worker productivity by making the manufacturing process operator controlled rather than management controlled.

The financial commitment to sustain such a comprehensive and diverse adult vocational education program in Ohio is substantial. In 1985-86 the combined federal/state dollar investment in program support amounted to $16.6 million. This investment translates into a per-participant cost of $243.80 for fulltime adult vocational education participants and $11.01 per part time enrollee.

As significant as this investment appears to be, however, there is a very real danger of losing our momentum. Technological change, worker dislocation, and foreign competition are occurring at unprecedented rates. These rapidly changing conditions are exerting growing pressures on the educational system to provide training and retraining services. If the educational system, and particularly the vocational education component, is to be responsive to these needs, additional resources are paramount. Trainee costs, instructor updating and maintaining sophisticated and technologically relevant training equipment are expensive undertakings. Without assistance from the federal level, state and local financial resources will not be adequate to accommodate the need.

The authorization of $100 million in S.406 to fund Part C of Title III in the Carl D. Perkins Vocational Education Act (PL98-524) would aid dramatically in addressing the adult worker training need in this country.

In Ohio we have a comprehensive and proven system for adult worker training and retraining already in place. Successful and positive results are a hallmark of our experiences to date.

Vocational education in Ohio is

- addressing the needs of the worker adversely affected by foreign competition,
- preparing the unemployed and underemployed to access and advance in new, expanding and/or export related industries and business,
- working with current employees to make American business and industry more competitive on a global scale, and

- accommodating the occupational skill needs of individuals for entry into and advancement in high tech occupations.

I believe that our experiences in Ohio can be mirrored in other vocational education programs and systems across the nation.

I submit that investing in an already proven and functioning system for training and retraining is prudent fiscal management and will virtually assure a positive return on the investment for the nation's economy and its workers.

I encourage your pursuit of this important and timely Act and I thank you for the opportunity to share my views.

Senator **Pell**. Dr. Gaudiani?

Dr. **Gaudiani**. Thank you very much, Senator Pell. I am delighted to be with you today, and I am very glad to have the opportunity to address you and the Committee.

I want to make two major points in my address, and because I am a teacher, I am going to avoid reading and simply tell you about two important aspects of the progress we have made in the area of foreign languages and international education to help prepare American citizens to deal better in a global environment.

My first major point is that the success of the Joseph H. Lauder Institute of International Studies at Penn tells us that we know how to make a competitive American citizen who can go out and function in a world environment, speaking the languages of his or her customers.

The second point is that the production of this kind of a graduate is dependent on a strong pipeline, which means education in the schools and on through the colleges has got to provide excellent education in foreign languages. Good articulation across levels is critical if we are to bring people in at the graduate level and prepare them for professional work using the foreign language.

Increased authorization of S. 406 is crucial to making this combination possible, creating better graduates at the graduate level, and also preparing all along the academic line to assure that larger numbers of Americans will be able to enter the work force with competence in foreign languages.

Let me tell you for a minute about the Lauder Institute. The Lauder Institute began three years ago at the University of Pennsylvania. It is a 24-month program for 100 students who receive a joint M.B.A./M.A. degree. They spend 25 percent of their time studying and working overseas. They take internationalized M.B.A. course work, majoring in finance, marketing, management, or strategic planning. They take a set of global comparative courses in economics, political science and social systems.

They select one of six world regions for special emphasis. These include: Western Europe, where their language focus must be French or German; Latin America, where their language focus must be Spanish or Portuguese; East Asia, where their language focus is Japanese or Chinese; the Soviet Union and Eastern Bloc, where they specialize in Russian language; South Asia, where they specialize in Hindi; and for the foreign students in the program, of course, they focus on U.S. culture and study English language.

One critical element in the program, however, is that in addition to passing all admissions requirements of the Lauder Institute, students must also pass a 20-minute oral interview in one of the foreign languages at the level Advanced, on the ACTFL-ETS scale. This translates to Level II on the Foreign Service Institute scale: This oral proficiency foreign language requirement is the first of its kind for an MBA program in the U.S. It means students not only have to meet the normal requirements to get into The Wharton School, which awards the M.B.A. degree, but they also have to pass this high oral proficiency test in one of these nine foreign languages. Because they come in with this advanced level, it means we can assure that 100 percent of our graduates with the M.B.A. degree, and the M.A. in international studies will also finish with a professional level of proficiency in one of these languages. It means that we can start producing, as we have been doing at the rate of 50 per year from the Lauder Institute, graduates who can walk into a business meeting in São Paulo and conduct that meeting in Portuguese; who can, as one of our graduates did recently, go with a Xerox team to Beijing and function in the language as a professional, as an American, not needing a translator.

The American educational system has not tried in the past to create this kind of language competent professional manager. We are doing it now. So the hopeful statement I can share with you is we know how to do it. What S. 406 will permit us to do is to develop centers like the Lauder Institute all over the country.

The United States needs more than 50 graduates with this combination of integrated skills. We need hundreds and hundreds of Americans who can walk into meetings in Germany and in France and in Japan and conduct their affairs professionally in foreign languages on behalf of their companies.

The reaction of the corporate sector to these Lauder graduates has been very exciting. Fifty percent of the first graduating class accept jobs abroad; that is, 50 percent of them went directly to overseas assignments. Their outgoing salary—and this is a very interesting statistic—was 7 percent above the standard outgoing salary for a Wharton M.B.A. This means that the corporate sector was willing to pay 7 percent above the outgoing salary for a regular M.B.A. for American M.B.A.s who had this special additional nexus of skills in foreign languages and knowledge of the cultures where those languages are spoken.

Obviously, to make a program like this, we have to admit students who already know the language. That education has to begin in the schools and the colleges, and my colleague David Edwards will talk about that in more detail.

The funding that 406 provides will enable us to create new centers across the country, will enable us to work with our colleague centers in Senator Thurmond's State at the University of South Carolina, which has a master's in international business studies program. It will also permit us to create new materials to support this kind of education; it will give us faculty development money. We need to train foreign language faculty to understand cultures better from the standpoint of economics, political science and sociology, not just literature; and we need social science and management faculty who can in fact teach in the language, and that should also be possible.

And finally, we need funds for research and the training of foreign language testers.

Senator Pell and Senator Stafford, I have a dream. By the year 2000, the United States ought to be producing 20 percent of its work force capable of functioning professionally in English and one other language. We must by the year 2000 be able to meet the world on its own terms. We must step forward and show that Americans respect other cultures and peoples and expect to meet them by using the languages effectively. We know how to do this now; that is the hopeful part. The Lauder Institute has proven this. What we need is the funding that will make this possible for more institutions to do so.

I should close by telling you that the Institute receives $200,000 per year from Title VI–A. These funds made it possible for me as the person who directs the language and cultural perspectives program to do what we have done in this experimental language program.

We are also benefitting from a $10 million endowment from the Joseph H. Lauder family. Money is significant in making this kind of educational change happen.

I am grateful for the opportunity to share these thoughts with you.

Senator PELL. Thank you very much, Dr. Gaudiani. I hope your dream is fulfilled, and I would add my own tribute to the Lauder family, and to and what they have done.

[The prepared statement of Dr. Guadiani follows:]

Testimony of

Dr. Claire Gaudiani

Assistant Director of the

Joseph H. Lauder Institute of

Management and International Studies

before the Senate SubCommittee

on Education, Arts and Humanities

re: S.406--"To provide additional Federal education programs designed to strengthen competitiveness of American industry..."

Mr. Chairman and members of the Committee:

I am delighted to speak to you today. I bring you a success story. The Joseph H. Lauder Institute of Management and International Studies at the University of Pennsylvania is currently producing the kind of graduates that America's corporate sector needs if we are to meet the challenges of the global marketplace. The fact that the Institute can achieve its goal means that the nation can wisely spend the increased authorization of funds as specified in S.406. This is the first of two major points I want to share with you today.

Making U.S. industries more competitive is a major challenge. Many observers acknowledge that among other things, Americans must develop better understanding of foreign markets, consumers, and their needs. We need more Americans whose tongues are untied, whose minds are attuned to other cultures, who can literally translate our goods and services for the world market. They must communicate effectively, negotiate wisely, and draw and sustain consumers' attention just as the Japanese have done in the U.S. market. American education is a critical asset to meeting this complex challenge.

The Lauder Institute began in 1983, as the vision of Leonard and Ronald Lauder. Faculty and administrators at the University of Pennsylvania have worked together to realize a new kind of graduate management education--one in which the level of excellence of modern management theory and practice is met by equal levels of excellence in foreign language proficiency and knowledge of other world cultures.

The Lauder Institute offers an MBA/ MA program. It is living proof that American faculty and students can meet the challenge of the global marketplace. Lauder graduates are highly trained Wharton MBA's who can also speak in tongues. Their MA degree in International Studies requires a professional level of oral proficiency in one of nine languages and substantial knowledge of the traditional and contemporary culture of the people who speak the language. Since 1983, the Institute's 24-month program has enrolled 50 new students each year.

The Lauder program includes a number of distinguishing characteristics:

1. Graduates of the 24-month program receive two degrees, the MBA from the Wharton School and the MA from the Graduate School of Arts and Sciences.

2. They spend 25% of their time studying and working overseas--their first summer in intensive language and culture courses and their second summer in paid executive internships.

3. They take internationalized MBA coursework majoring in finance, marketing, management or strategic planning.

4. They take a set of global/comparative courses in economics, political and social systems.

5. They select a set of region specific courses that give them in-depth knowledge of one of six world areas: Western Europe, Latin America, East Asia, South Asia, Soviet Union and Eastern block, or United States (for foreign students).

6. They are enrolled in advanced language and cultural perspectives courses during each of the four semesters they spend on campus. They study one of nine languages: French, German, Spanish, Portuguese, Chinese, Japanese, Russian, Hindi or English for foreign students.

7. Students must pass an individual oral proficiency test at Advanced level to enter the program. They progress from Advanced level to Superior level during the 24-month period. Superior level means proficiency adequate to function effectively in professional and social social settings where the language is spoken. Students are given a 20 minute oral interview in the language five, times during the 24 months to monitor their progress and diagnose difficulties they encounter on their way to proficiency.

The Institute offers many other features which are summarized in its catalog attached to this document. What is critical for our purposes today is to underscore the fact that the Institute is proving to American business that American education can produce highly skilled managers with the latest in technical know-how who can speak foreign languages very well. These young people can walk from the management office to the plant floor to speak to workers and foremen. They can confer with middle managers as well as CEO's.

They move as easily in the work environment as in the critically important social sphere. They are knowledgeable about labor problems, industrial policy, and economic trends in the countries they have studied. They are also familiar with its art, music, and important pieces of literature. Their language facility makes their management know-how work better. As word gets out that this combination of language and professional skills is possible for Americans to achieve, I believe American business will quickly understand how to utilize this natural resource.

The Lauder graduates are proving that it is not true that babies born in the USA arrive without some critical component in the larynx that those born in Switzerland or Belgium or Sweden receive at birth. Americans are not linguistically handicapped--just linguistically disadvantaged. Increased authorization of S.406 at this time when we know how to achieve our goals will help eliminate this disadvantaged status.

The Institute has proven it can produce these graduates through its intensive program. However, its work is dependent on strong entry skills as requirements for admission. These skills must be acquired earlier in the educational pipeline--in schools and colleges. Besides strong verbal and quantitative skills as measured by their academic record and GMAT scores, candidates must all pass an oral proficiency interview at the Advanced level to be eligible for admission. They cannot be admitted with "a little language" any more than with "a little math". They must also have two or more years of work experience in a corporate setting. The corporate sector has been able to count on the Wharton School for the finest preparation of its graduates in the management and financial areas. Students in this joint MBA/MA program are convincing their employers that their foreign language proficiency and their understanding of economic, social and political issues are at a similar level of excellence.

Class Profile of Lauder Fellows

	Class of 1988	Class of 1987	Class of 1986	Average
Female	36%	35%	37%	36%
Foreign	30%	29%	31%	30%
Average Age	26.6	26.3	26.5	26.4
Range of Ages	22-36	21-34	22-34	22-34
Studied Abroad	77%	62%	60%	66.3%
Worked Abroad	49%	45%	10%	34.6%
Undergraduate Majors				
Social Science & Humanities	34%	39%	50%	41%
Engineering & Science	23%	28%	18%	23%
Business & Economics	43%	33%	32%	36%
Area of Specialization				
East Asia	20%	31%	8%	19.6%
Latin America	18%	22%	34%	24.6%
Western Europe	40%	29%	43%	37.3%
Eastern Europe/Soviet Union*	4%	2%	N/A	3%
South Asia**	N/A	N/A	N/A	

United States	18%	16%	15%	16.3%

*Limited program started May 1985 **Program started May 1986

Last June, the Institute's first class of graduates began their professional careers. Fifty percent accepted positions which placed them overseas immediately. Almost all are working in international branches of their companies. Lauder students had an average of five job offers each. Their average outgoing salary was 7% higher than that of the standard Wharton MBA working abroad and 4% higher than Wharton graduates working domestically. This means that the corporate sector was willing to pay a premium of 7% above $43,000 for MBA's who speak foreign languages and were prepared to work effectively with foreign markets. Students were regularly interviewed in their foreign languages as part of the hiring process. In other words, they had to prove themselves linguistically to the office personnel in Geneva or Sao Paulo or Paris.

Under Title VI of the Department of Education, the Institute has received $200,000 per year for the past three years. These funds have enabled the Foreign Language program to be developed and integrated into the social science, humanities and management courses. Priority funds gave us the support we needed for the extensive oral proficiency test schedule. By testing students five times during their 24 months in the Institute, we can assure that they will achieve the proficiency goals.

I hope you will look at the Lauder Institute as a pilot, as a model of its kind. Its success proves that we know how to connect management education to high oral proficiency levels and substantial knowledge of culture. The Institute and the other institutions working in this area are ready to help develop similar centers at many universities all over the country.

Increased authorization of S.406 will assure that:

1. more American students will be ready to take up the challenge of international education and professional school programs like the one at Penn.

2. more American faculty will be prepared to teach and test foreign languages effectively.

3. more American universities will be able to produce important research on language acquisition and links between language learning, social science, and humanities.

Increased authorization of S.406 will make funds available to develop additional centers like the Lauder Institute. It will provide funds for our excellent sister institutions working in the international studies, foreign language, and management area. Lauder is particularly proud of the University of South Carolina whose MIBS program was the first combined degree program of its kind.

Almost more importantly, increased authorization will strengthen elementary and secondary education in foreign languages. Without the strong pipeline creating continuity and providing critical early exposure, the numbers of graduates with integrated skills and knowledge for global management will remain minuscule. To be competitive, we must have many hundreds of graduates each year with advanced language proficiency to enable them to function professionally in a variety of different countries.

The significance of this "pipeline" is the second point of my remarks today. Language education must begin early and continue in well articulated sequences. The support provided in this bill will enable the schools to develop language proficient Americans who will enter vocational training programs, colleges, or eventually graduate programs with the background they need to function at work using their foreign languages. It will help to assure curriculum building, materials development, teacher training, and training of testers.

Mr. Chairman, I have a dream. I have a dream that in the year 2000, twenty percent of America's native speaking English job holders will be able to function at working using English and one other language. Doctors, lawyers, engineers, and faculty members in schools and colleges as well as managers will be proficient speakers of the world's other languages. They will speak Japanese, Chinese, and Russian as well as Spanish, French, and German. With 20% of our professionals and support personnel and workers competent as un tongue-tied Americans, we will have enough speakers of each of the major languages to meet the world on its own terms. At international meetings, whole groups of people will no longer be forced to use their second or third languages to accommodate the one or two monolingual Americans at the conference table as is the case in 1987. The United States owes this courtesy to the world. United States industry deserves this benefit to improve its global competitiveness.

American education can make this dream come true. The success story of the Lauder Institute proves we can. Increased authorization of S.406 is a critical next step.

Senator **Pell**. Dr. Edwards?

Dr. **Edwards**. Thank you, Senator Pell, Senator Stafford, and members of the subcommittee for this opportunity to testify in support of S. 406, the Education for Competitive America Act.

I am representing the Joint National Committee for Languages. It is an umbrella organization composed of 33 national language and international studies groups that are concerned with national policy.

We are very pleased to note that S. 406 recognizes the integral relationship between international knowledge, language skills, and global economic competitiveness.

The last few years have seen some very positive changes and accomplishments in the area of language and international education. Recent reports by the Southern Governors' Conference, the Chief State School officers, the State School Boards, the Carnegie Foundation and a number of others, have all noted the importance of improved foreign language study and called for necessary reforms such as the implementation of language courses in the earliest grades.

Enrollments have increased very impressively in the last few years, including enrollments in Chinese, Japanese, and Russian. New York, for example, has tripled their language enrollments in the last six years, and a number of other States have seen their language enrollments double just in the last three years.

Thirty States now have some form of language requirement or language standard, and 17 States in the last couple of years have reinstituted world geography and world history courses. We are delighted to see that. And every, single State is, at the very least, examining their students' international knowledge and language skills.

The new emphasis on proficiency and on communication has produced excitement and enthusiasm among the leadership in language teaching and among language teachers and their students. We are indeed very grateful that through the leadership of this Subcommittee and the Members of this Subcommittee, Congress has encouraged language study in such legislation as the Education for Economic Security Act and in the revisions and improvements of Title VI of the Higher Education Act that took place in the last Congress.

We have made a beginning on the long road toward developing an internationally aware citizenry, linguistically competent students and teachers, and a cadre of experts with the international skills to address trade, defense and diplomacy. But we have a long way to go. Problems still exist.

First, the increased enrollments are very top-heavy in colleges and universities. If we are to build a pipeline, as Admiral Inman referred to it in talking about our need for foreign languages for national security, or a feeder system, that is going to produce first rate language and area experts and make students more internationally aware, we have to start very early when language learning comes easiest.

We still have very few elementary school language programs in the United States. Programs in Russian, Japanese, Chinese and

Arabic are almost nonexistent. The few programs that do exist, in FLES and immersion, for example, are very good programs.

I was fortunate a few months ago to go to the Oak View Elementary School here in Montgomery County where I saw students in first grade functioning in Spanish in a fashion that was very impressive. The sixth graders in the French immersion program were talking about Socrates, the Constitution, democracy, and doing it in a very, very sophisticated fashion. In fact, I would have been very impressed to hear them discussing it in English with that much sophistication. As someone who still teaches a college political science course, I would be impressed if my students could do that.

We need more of these types of programs. S. 406 is to be commended for providing support for model and innovative programs in the elementary and secondary schools. Outstanding foreign language teacher awards, modelled after the current math and science awards, would also encourage innovation and creativity in the schools.

Secondly, foreign language education is experiencing a major teacher shortage. Louisiana, Georgia, Texas, Maryland, and a number of other states, for example, are being forced to recruit teachers overseas so that they can find the necessary skills.

If we are to respond to this increased demand, we need to provide teachers—good teachers, I might add. S. 406 scratches the surface here and will begin to address this issue, if it can help to provide some of the increased funding for Title VI of HEA to support the new provisions for the summer institutes that were created in reauthorization last year. While serving the needs of students and even businesspersons, these institutes could provide some pedagogical training and some methodology for these teachers who are being recruited abroad; they could help the coach, who studied Latin 20 years ago and now finds himself back in the classroom, forced to teach it; and they could help the teachers who are currently struggling in the trenches to upgrade and refresh their skills.

Finally, Dr. Gaudiani has very ably addressed the international management provisions of this legislation. I would simply add on our behalf that in focusing on the interface between international education, language skills and business training, S. 406 provides a service and an opportunity that only a handful of schools are now addressing, and very importantly, it comes to grips with the immediacy of our national need for education for a competitive America. It is something we can do right now that would have readily realizable effects.

Thank you very much for your attention, your support and your concern on this issue, and I would be pleased to elaborate or answer any questions.

Senator Pell. Thank you very much, Dr. Edwards.

[The prepared statement of Dr. Edwards with attachments follow:]

JOINT NATIONAL COMMITTEE
FOR LANGUAGES

TESTIMONY ON
S. 406
INTERNATIONAL EDUCATION FOR A COMPETITIVE AMERICA ACT
U.S. SENATE
COMMITTEE ON LABOR AND HUMAN RESOURCES
SUBCOMMITTEE ON EDUCATION, ARTS AND HUMANITIES
March 23, 1987

Submitted by:

J. David Edwards, Ph.D.

Executive Director, Joint
National Committee for
Languages

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The Joint National Committee for Languages (JNCL) is an organization of thirty-three major associations concerned with language education. JNCL represents the interests of educators in the less commonly taught languages, including Chinese, Japanese, Arabic, and Russian, as well as more traditional languages such as Latin, Spanish, French and German. Also included are a number of associations concerned with the relationship of languages to technology, such as the International Association of Language Laboratories, the National Association of Self Instructional Language Programs, and the Computer Assisted Language Instruction Consortium. Finally, members such as the Center for Applied Linguistics, the Modern Language Association, the Linguistic Society of America, the National Council of Foreign Language and International Studies, the American Assembly of Collegiate Schools of Business, and others are concerned with broad issues of education and research.

The Joint National Committee for Languages supports and urges adoption of the "International Education for a Competitive America Act" as an important component in addressing our nation's appalling lack of international understanding and global competence. This legislation, if enacted, will represent a significant step toward increasing the international skills which will enable our citizens to compete more effectively in the international marketplace, as well as broadening the base from which to develop experts in these fields for the 21st century. While it would be foolish to assume that by simply learning a second language we will erase the trade deficit, it would be equally foolish to assume that we can regain our international competitiveness without a knowledge of other nations' economies and politics, without an understanding of their cultures, and without an ability to communicate in their languages. There is little question of the need to improve technical skills in areas such as math, science, engineering and computer competency. However, to increase such skills in a monolingual, monocultural vacuum would only provide experts incapable of functioning in a global arena and international environment. International education and language study must be vital components of any attempt to educate individuals to be internationally competitive.

The past few years have seen a plethora of major commission reports acknowledging the importance of international education, including foreign language study, for improving American competitiveness. The major difference between these new reports and those of the late seventies is that they are now coming from policymakers, as well as researchers and academics. The Southern Governors' Association, in its November 1986 "Cornerstone of Competition," states that "it is no longer possible to assume that we will be able to sell our products, conduct our negotiations and understand our world in English. If we cannot communicate with the rest of the world, we will lose markets for our products and our ideas." The report of the Business-Higher Education Forum, "An Action Agenda for American Competitiveness," included a mandate for increasing the teaching of foreign languages and cultures. It also emphasized the need for these courses to be included as part of continuing education programs available to businessmen. In late 1985, the Council of Chief State School Officers specifically focused on international educational needs and offered forty-seven recommendations for improvement including developing a "feeder system" by offering foreign languages in the elementary schools.

While these and similar national studies are impressive and have begun to have an impact, many states have already taken responsibility for increasing the international awareness of their citizens. In 1984, the year JNCL began monitoring state activities, twelve states had mandated foreign language study for their students. As of October 1986, thirty states had implemented some type of language requirement, and several states have begun looking at ways to integrate foreign language study into other areas of the curriculum (See Appendix I & II). Enrollment figures are rising dramatically, with Virginia reporting more language students than at any time since World War II and Wisconsin experiencing their highest language enrollments since 1917. Thirty-one percent of Iowa's high school students are enrolled in foreign languages and Oklahoma's enrollments have increased by almost 30% in one year.

Several states have established programs which could serve as models for activities on a national level. The Tennessee General Assembly recently approved the creation of the Tennessee Foreign Language Institute specifically to provide training and service to the business community, as well as provide teacher training. The Maryland Summer Center for International Studies offers a program for high school students, working with computer assisted exercises, to work in country teams to conduct international negotiations on complex issues facing world leaders today. Recognizing the strong ties between Florida and Latin America, that state has established several programs to upgrade foreign language and international study. Of particular note is the Florida-Brazil Institute, which provides for on-site study of the Brazilian language, culture, economy and politics, and an exchange program to bring students from Central America to Florida to study.

We are very encouraged and applaud these state activities. They are not only providing students with improved international skills but they are also developing a broad base of general language skills and international knowledge from which high-level expertise can be developed--"a pipeline," as Admiral Bobby Inman characterized it. Secondly, the state activities are beginning to provide insights and develop models to improve our system of international education and to allow us to identify areas where there are major problems and gaps. Consequently, state activities underscore the need for national leadership and responsibility. Particularly to the degree that international education and language skills are vital to national security and international economic competitiveness, they are national concerns beyond the scope of any single state or combination of states. Coherent, multi-dimensional national policy can address the problems, fill the gaps and serve the national interest.

While by no means comprehensive, the International Education for a Competitive America (S. 406) provides mechanisms to address some of the more glaring problems in language and international study: severe teacher shortages, a limited number of elementary school programs, little or no interaction between international and management education, and major lacunae in the acquisition and translation of technical publications.

Increased language enrollments, reinstituted or new requirements, the need for dual language proficiencies, and an increased demand in rural areas have produced significant teacher shortages in a number of states. A recent informal survey by the National Council of State Supervisors of Foreign Languages found that 57% of the states responding were currently experiencing a shortage of foreign language teachers and 64% expect a shortage in the future. School districts are being forced to go abroad to recruit teachers or are hiring noncertified teachers, out-of field teachers, and even unqualified teachers. If we are to continue to provide quality instruction, an effective foreign language teacher recruiting and training program is needed.

If the aim of foreign language study is to produce language-proficient students, a carefully articulated program allowing students to increase proficiency at each educational level is needed. As school systems begin to implement foreign language programs in the elementary schools, teachers with superior degrees of proficiency will be needed at the secondary level and beyond in order to produce students with high levels of proficiency as well. Programs to enable teachers to maintain or increase their skill levels must be developed.

There is also a need to recognize and/or implement model and exemplary programs in foreign language education, especially at the elementary level. As there is no one single proven approach to instruction of foreign languages, but rather a healthy diversity of methods, successful programs demonstrating effective methods need to be shared across the field.

The provisions in S. 406 for additional funding for Title VI, Part A of the Higher Education Act if used to support Intensive Summer Institutes currently in the legislation but not funded, would provide opportunities for teacher training and skill maintenance. In addition, the provisions for state awards for outstanding foreign language teachers address the need noted in several reports on educational reform to recognize the important role of the teacher in our society, and will increase morale in a field that has been somewhat beleaguered in the past. Finally, the funds for model and exemplary elementary and secondary programs may be the most significant portion of this act in that they provide the opportunity for innovation and improvement in current foreign language programs. The combination of these programs will help insure a strong "pipeline" of students who have an understanding of the languages and cultures of other nations. They provide a base from which to develop both a globally aware citizenry and an internationally competent cadre of experts and specialists.

Perhaps of most immediate relevance, this legislation addresses the need for an interface between foreign languages, international education and management education. American businesses are woefully inadequate in their recruitment and training of individuals with the proper business skills who have communicative competence and are knowledgeable about other nation's cultures. In a recent survey of 100 top managers for major companies, Egon Zehnder, a worldwide management recruiting firm, found that ninety-five percent agreed that over the next five years 'their company's' ability to compete against foreign firms is essential to long-term success." Yet most noted that their overseas managers did not have the necessary language skills and were "woefully ignorant about foreign markets." The survey's findings led Egon Zehnder to conclude "we wonder how a manager can assess business opportunities if he does not speak the language and has little knowledge of the culture." With a very few exceptions, these glaring deficiencies are the result of highly parochial business, language and international programs that fail to address relevant management or international skills. The provisions of S. 406 for Centers for International Business Education and increased funding for Part B of Title VI of the Higher Education Act will help ensure the availability of individuals trained in business skills who are also familiar with other cultures and proficient in the languages of the countries with which they will be dealing.

A final aspect of the education for competitiveness issue is our lack of information about technological discoveries and innovation by our international competitors. Scientific and technological information is no longer published exclusively in English and the United States currently lacks the capability to translate this information adequately. The additional funds contained in S. 406 for the acquisition, translation, and dissemination of technical foreign publications will do much to alleviate this problem.

In conclusion, while noting that there is no overnight cure for our international ignorance and lack of language skills, and that the alleviation of this dilemma will take time and hard work, the Joint National Committee for Languages wholeheartedly supports the adoption of this legislation as an important initiative. In addition to providing for programs and the necessary tools to increase the international skills of tomorrow's leaders, it also provides assistance for those who must deal with the problems of international competitiveness today.

APPENDIX I

State Initiatives and Activities in Foreign Languages and International Studies

Compiled by Jamie B. Draper, Elizabeth H. Graham and Tamara S. Johnstone

March 1986
Joint National Committee for Languages
Washington, D.C.

This report has been compiled from information received in response to a series of letters and telephone calls to foreign language supervisors throughout the country. While this is by no means a detailed account of everything occurring in the field, it is an overview of the various state initiatives and activities regarding foreign languages and international studies occurring at this time. Realizing that these activities are part of an ongoing, ever-changing process, it should be understood that this information is kept as current as possible, and is updated periodically as more information is received.

For those states where information could not be acquired from supervisors, consultants, or education officials, every attempt was made to locate material from other sources. These sources included commission reports on file from the JNCL office, letters received concerning proposed legislation, and the newsletters of various language associations.

The report was prepared to provide some useful information to national policy makers, state governments, and concerned organizations in their efforts to determine and chart the course of foreign language study in this country. It is by no means exhaustive, and should serve as a beginning to determine additional activities and areas of study needed.

Alabama

The State Board of Education has established two high school diplomas, one of which requires two years of foreign language study. The University of Alabama at Tuscaloosa has established a one-year foreign language exit requirement. A task force has been established to study foreign language education. Teachers of Spanish and French must pass a state proficiency test.

From the Education for Economic Security Act, Title II (PL 98-337), $92,000 has been allocated to conduct a statewide needs assessment for foreign languages, to conduct weekend seminars for high school foreign language teachers, and to sponsor a summer institute to provide intensive instruction in phonetics and conversation, grammar and composition, contemporary culture, and methodology.

Alaska

In its report, *Foreign Language Learning in Alaska: Data, Analysis and Recommendations for the Eighties*, the Alaska Foreign Language Association recommends that:

"The governor appoint a State Commission on Foreign Language and International Education."

"The Department of Education fund a full-time foreign language supervisor; assist local school districts in fully implementing the second language instruction policy; develop clear, adequate minimum professional standards for foreign language teachers and recommendations to guide adminstrators in hiring such instructors; help local school districts with funding, information, and other support to establish sound and effective foreign language programs in the elementary schools and to coordinate these with programs at the secondary level; establish a library of resource information and support materials, including not only printed materials, but also computer software, video, audio, and film materials; and develop instruments for assessing student proficiency in a second language and monitor the assessment on an ongoing basis."

Arizona

The Report of the Governor's Committee on Excellence in Education has recommended that foreign language be a required subject; however, a recent legislative initiative to enact this recommendation was defeated.

Arkansas

The "Standards for Accreditation of Arkansas Public Schools" mandates that, by June 1987, all accredited elementary schools must include "Exercises in Foreign Language" (foreign language instruction or cultural activities) at some time in grades 1-6, and all accredited high schools must provide two units of a foreign language. One unit of Global Studies must also be provided at the high school level.

The University of Arkansas, beginning in 1987, will require two units of a foreign language for admission to the Liberal Arts School.

California

The Education Code and Title V of the California Administrative Code require that schools offer foreign language study in grades 7-12, and that students complete one full year of a foreign language course before graduation from high school. While students entering the University of California system have always needed two years of a foreign language for admission, the California State University system has also recently adopted this requirement, effective for all entering freshmen beginning in 1988.

The State Board of Education has recently adopted the model curriculum standards developed by the Superintendent's Advisory Committee on Foreign Languages. These standards will serve as a guide for foreign language programs in grades 9-12. Although it is not mandatory that school districts adopt these specific standards, they will be required to assess their foreign language programs using these model standards as a basis for comparison once every three years.

The state has also established the Foreign Language Liaison Committee which is currently working on a foreign language competency project that will provide standards to determine foreign language proficiency at all levels.

The California State Department of Education is now funding a curriculum and instruction center for foreign language education to conduct curriculum and staff development programs. As part of the overall effort to expand staff development programs, the Curriculum Implementa-

A $100,000 grant from the University System of Georgia will be used for 75 half-funded study abroad fellowships for currently certified foreign language teachers.

Hawaii

Hawaii has received funding for and is currently implementing a pilot foreign language program called TELECLASS. In this program, language classes in Hawaii are matched with a school in the target country learning English. Language is then taught through actual interaction between students in these countries using several different media. These include slide and tape shows, video presentations, telephone conversations, television, electronic mail, etc., depending upon the availability of such resources in each school. It is hoped that this program will provide a needed motivation for learning a foreign language, as well as practice in real-life language situations. The program is implemented currently in Chinese, German, Japanese, and Korean language classes.

Idaho

After 1988, four semester credits in the humanities, which include foreign languages, will be required for high school graduation.

Illinois

Currently, students in Illinois must have at least one year of either music, art, vocational education or foreign language study for high school graduation. A measure was recently passed requiring that by 1990 all students seeking to attend Illinois state universities have two years of art, music or foreign language for admission.

House Bill 1072, creating the Illinois Language and International Studies Academy, was passed by a large margin in both houses of the State Legislature last summer but was vetoed by the governor. The bill will be resubmitted, however, some time during the current session. The Academy would provide a normal high school curriculum, with the exception of concentrated study in one modern critical language per student, for approximately 400 students chosen on the basis of language aptitude tests. The bill is also seen as a vehicle to establish a "policy of the State of Illinois to promote excellence in foreign language and international education" (H.B. 1072). It also authorizes an ongoing program of in-service training for foreign language/international education teachers statewide and the development and dissemination of instructional materials.

In Feburary 1986, the State Board of Education received a staff analysis and set of recommendations for new policy in the area of foreign language and international education. These recommendations are the result of a three-year study which included input from a citizens' board on foreign language and international education. Among the recommendations included in the study are:

—Schools should have foreign language programs beginning in "early elementary grades" and continuing through high school.

—All students should have access to foreign language programs.

—Students of limited English proficiency should have the opportunity to develop both their home language and English language skills concurrently.

—An international perspective should be infused into all aspects of the curriculum, beginning at the elementary level.

—Programs in the less-commonly-taught languages should be expanded.

These recommendations will be considered by the State Board of Education Planning and Policy Committee and, later, the full Board. If approved, the Board of Education will develop a policy plan based on these recommendations and begin the process of putting this plan into action.

Indiana

All public high schools and accredited non-public high schools must offer foreign language instruction. For minimum accreditation, a school must offer a two-year sequence in one foreign language. For maximum accreditation, a two-year sequence of one language and a four-year sequence of a second language is required.

Beginning with the graduating class of 1989, the language arts requirements will be increased from three to four credits. The fourth year of language arts may be waived if a student has successfully completed three levels of foreign language instruction.

At the junior high school level, a new proposal would provide an allotment of 200 minutes per week for foreign language instruction.

To obtain a license, teacher candidates, including foreign language candidates, must now pass a test of proficiency in their area of specialization.

Iowa

In its report to Governor Terry E. Branstad, the Governor's Task Force on Foreign Language Studies and International Education recommended state-wide promotion of a comprehensive foreign language and international studies program extending from kindergarten through college.

All secondary schools are now required to offer two years of a foreign language. A new legislative requirement will lead to development of new standards for state schools by 1987. Proficiency levels, scope, and sequencing for foreign language programs will also be determined. Schools will receive $50 for each student enrolled in a foreign language.

The position of foreign language consultant has been added to the Department of Public Instruction.

Kansas

Kansas Regents for Higher Education have instituted a minimum requirement of 10 credit hours of foreign language study for the B.A. degree at all state universities. Beginning with freshmen entering in the fall of 1986, students must have had two years of foreign language instruction in high school, or take 10 hours in college.

In February 1986, the Kansas State Board of Education approved the "Kansas Plan for International Education." This plan was developed in response to the *Strategic Plan for Kansas Public Education for the Year 2000* to address the goal of giving students a broader understanding of international issues and cultures.

Under this plan, in cooperation with language and social science specialists, the State Department of Education will develop a database of personnel and resources within Kansas which can be used to improve international education throughout the state. Curriculum guidelines have been produced for social studies and are currently being developed for foreign languages. Funding has been received to write a booklet of instructional activities which relate Kansas to the rest of the world. In-service sessions will be developed in cooperation with professional organiza-

A University-wide Task Force of Foreign Languages has been created by the University of Maryland. Members include representatives for the Maryland State Department of Education and all university campuses.

In 1982, the Baltimore City School Board adopted a plan that mandates four years of instruction in a single foreign language for college-bound students and at least one year of instruction for other students. In addition, every middle and junior high school student must take at least two years of a single foreign language, and an experiment is under way in eight elementary schools to teach foreign languages to fourth graders.

Of EESEA funds, $50,000 has been allocated for use in a two-week language institute in July 1986 for upgrading the language proficiency of teachers and for an ESL workshop for math and science content area teachers.

Massachusetts

While no action has been taken, discussions on the need to promote foreign language learning are taking place. A report by the Joint Committee on Education pointing out the importance of foreign language has been circulated to state officials. A State Board of Education initiative would provide for more coordination between bilingual and foreign language education. Programs to promote coordination between the college and high school levels are also under way. Currently, a survey on the state of foreign language education is being conducted, and the creation of a State Foreign Language Supervisor position is being considered.

Michigan

A recent position paper and policy statement of the Michigan State Board of Education urges the reinstatement of foreign language requirements for admission to state universities. It recommends that colleges and universities stress the benefits of overseas study programs and include foreign language requirements in all international studies programs.

Minnesota

A Task Force of the College of Liberal Arts at the University of Minnesota's Twin Cities campus (the state's largest college) recently recommended the following:

In 1986, incoming freshmen without a year of foreign language study must take one, no-credit, remedial course. In 1987, this would increase to two years or two no-credit courses and in 1988, three years or three courses. However, students choosing a less popular language, such as Russian or Chinese, would begin earning credits immediately. In addition, students would need three quarters of a foreign language to graduate.

The University is also requesting $500,000 from the state legislature for the implementation of new foreign language programs.

The State Board of Education has proposed that all school districts offer at least two years of language instruction; one year less than the CLA 1988 standard.

Mississippi

The position of Foreign Language Consultant has been terminated.

While foreign language is not required for graduation from high school, students must have one unit from a required elective (i.e., foreign language or math above Algebra II or Advanced Science). It is recommended that students pursue two units of foreign language instruction.

Missouri

For accreditation, an AAA high school must offer a foreign language. Of the total high school enrollment, 16 percent is in foreign languages.

Montana

The Board of Regents of Higher Education has adopted a "firm recommendation" that academic preparation for college include a two-year language sequence.

Nebraska

Under the auspices of the Nebraska Department of Education, the Nebraska Task Force on Foreign Language Education has been established. The purpose of this organization is to "provide leadership at the state level to the foreign language teaching profession in Nebraska schools." Already the Task Force has established a communications network designed to bring together 500 teachers in Nebraska, as well as make contact with other foreign language associations and business leaders. The Task Force was also responsible for sponsoring oral proficiency and curriculum development workshops and for establishing immersion programs in Germany and Mexico.

Currently, the Nebraska Task Force on Foreign Language Education is planning to promote communicative proficiency through training programs in accordance with ACTFL guidelines and a proposal to adopt minimum standards of proficiency in skills for foreign language teacher education programs. The group also plans to continue increasing awareness of the importance of foreign language education by expanding its communications network and broadening contact between educators, business, industry and the public.

The Nebraska Department of Education is also involved in increasing access to foreign language education through a program designed to deliver instruction to rural areas. This new program now operates in 80 schools in Nebraska and uses visual tapes and teleconferencing to provide language instruction.

Nevada

There are no foreign language requirements at the present time. Currently, the state of Nevada is drafting a new Secondary Course of Study which includes a section on foreign languages. It will not be completed for another year.

New Hampshire

In December 1984, the New Hampshire State Department of Education outlined these general objectives of second language learning:

—acquisition of progressive proficiency in listening comprehension, speaking, reading, writing, and structural analysis

—an increased knowledge of other countries, cultures and attitudes

Oklahoma State University has initiated an intensive program of "distance learning" via its communications center and their satellite broadcasting capability. One of the programs being used in over 30 schools is high school German. The teacher is a native of Germany and has written the program. In addition to his twice-weekly live broadcast, the program features computerized voice-recognition drills whereby students practice their pronunciation. There are computer lessons and the usual homework, quizzes and tests. Exams are graded at OSU, and students receive high school credit through special permission of the state department of education.

Six school systems in the Oklahoma City area have instituted a program of French and Spanish instruction by parents trained in the languages, but not certified as teachers. The parents attend a workshop in preparation for leading the courses, which are meant to interest the children in other languages and culture and teach simple vocabulary and comprehension skills.

Oregon

The State Board of Higher Education "highly recommends" two years of foreign language for admission to public colleges and universities.On April 18, 1986, the Board of the Oregon State System of Higher Education voted to adopt a Strategic Plan for the continuing development of the system's colleges and universities. Final acceptance is scheduled for July 1986. Among the 45 recommendations, foreign languages are number two and mentioned in number one. The specific recommendation calls for all students receiving a baccalaureate degree to demonstrate proficiency in a foreign language equivalent to two years of college study. This requirement could be met at the high school level, with two years of high school instruction equal to one year of college instruction.

The State Board of Education, policymaker for public schools K-12 and community colleges, requires one year in any one or a combination of foreign language/fine arts/applied arts for graduation from high school, plus one year of global studies. These and all other graduation requirements are under discussion and may change as part of Oregon's Action Plan for Excellence. (Essential Learning Skills to be tested by the end of grades 3, 5, 8 and 11 have already been developed as the first step toward a common curriculum.)

Recent rule changes for teacher certification now permit (1) adding foreign language endorsements via NTE specialty and (2) certifying liberal arts graduates to teach subjects declared to have a shortage of teachers. Proposed rule changes, if adopted would require (1) passing an NTE specialty test before issuing an initial certificate and (2) continuing professional development for renewal of standard certificates.

Pennsylvania

Foreign languages, although recommended, are not required in Pennsylvania. A bill requiring two years of a foreign language for high school graduation was recently defeated by the state legislature.

Every school district must offer at least two languages other than English, one of which must be a modern language. One language must be offered for at least a four-year sequence. Languages may be taught at the elementary level.

Programs must be offered for students whose dominant language is other than English. These programs may be bilingual/bicultural or ESL.

Rhode Island

The state legislature requires that all college-bound high school students complete at least two years of a foreign language. There is currently discussion for instituting these requirements for *all* students for high school graduation.

South Carolina

Beginning in 1988, all students will be required to complete at least two years of a foreign language before entering a state-supported institute of higher education. A proposal to increase the number of credits required for high school graduation is currently before the state legislature. It is anticipated that this proposal, if passed, would have a favorable impact upon foreign language programs in the state.

South Dakota

The Board of Regents has mandated that all students successfully complete two years of a foreign language before entering a state college or university. As a result, secondary schools are now required to offer at least two years of a foreign language.

A move to void the foreign language admission requirement, supported by the South Dakota Vocational Association, Ag Unity, and the Associated School Boards of South Dakota, was successful. The South Dakota legislature recently voted not to require foreign language for college entrance, overriding Governor William J. Janklow's veto of the measure.

Tennessee

The State Board of Education has approved a curriculum framework for foreign languages which will be used for the development of a state curriculum guide or for use by local systems which elect to make their own.

Two years of foreign language study is necessary to receive a high school Honors diploma. All four-year state universities have also instituted a two-year foreign language requirement for freshmen entering in the fall of 1989.

The Tennessee State Department of Education is currently working on obtaining grant support for summer teacher training seminars and materials development.

Texas

Beginning in the fall of 1985, all 1,100 Texas public school districts were required to offer levels one and two of a foreign language. Also, students now select a program of 21 or 22 credits for graduation. Those students who choose the 22-credit program must have at least two units of a foreign language.

Recent action by the State Board of Education in Texas approved funding for three projects relevant to foreign language education:

1) *The Gifted Language Learner*—proposes to study ways to identify and teach the "gifted language learner" at elementary and middle school levels.

2) *Teaching Spanish to the Spanish Speaker at the Secondary School*—proposes to study the organization of students, curriculum, and strategies for classroom use.

3) *Centers for Proficiency*—This program establishes several summer institutes for teachers to strengthen oral proficiency.

COVER STORY

LEARNING FOREIGN LANGUAGES IS 'IN' AT ALL LEVELS

First graders at Oak View Elementary School are seated on the carpeted classroom floor, gathered around teacher Donna Gouin. They follow along in workbooks as Gouin discusses a story and pauses frequently to ask questions. The students raise their hands, eager to respond.

The scene in this suburban Maryland school is familiar, except for one thing: both teacher and first graders are speaking French. They're part of Montgomery County's French immersion magnet program for grades K-6.

For the 260 students enrolled in this program, French is the sole language spoken in their regular classrooms. Music, art, and physical education classes—taught by specialists—are conducted in English.

couleurs
3 trois
4 quatre
5 cinq
6 six
7 sept
8 huit
neuf

Donna Gouin and her French immersion students at Oak View Elementary in Montgomery County, Md., enjoy an amusing story.

The Language Boom

A cross-country sampling of today's language boom, as reported by the National Council on Foreign Language and International Studies:

▶ In Florida, students entering state universities must have had two years of foreign language study. The state has agreed to provide matching funds to local districts for elementary programs.

▶ The Kansas Regents for Higher Education require a minimum of 10 foreign language credit hours for a BA degree at all state universities.

▶ In Pennsylvania, every school district must offer at least two languages other than English. One must be a modern language, and one must be offered for at least a four-year sequence.

▶ In Louisiana, fourth through sixth graders must take 30 minutes of foreign language instruction each day. Beginning next school year, the requirement (150 minutes a week) will extend to seventh graders; the following year to eighth graders.

Students can join the program in either kindergarten or first grade. "For the first three months, first graders may use English when asking us questions or speaking among themselves," notes Gouin, "but from December on we strictly enforce the 'French only' rule. And at *no* time do the children ever hear anything but French from me."

When the Oak View program began, in 1974, it was one of the nation's first "total immersion" foreign language curriculums for elementary students. The concept was developed in Canada to teach French to English-speaking youngsters. Such programs are still rare—and controversial—in the United States, but they've now been adopted in some 25 school districts.

Alta Evangelista teaches Spanish in a "partial immersion" program in Maryland.

For example, three elementary schools in the San Diego (Calif.) city district initiated total immersion programs—two in Spanish and one in French—in 1976. In Tulsa, Okla., Eliot Elementary has offered a Spanish magnet program to students in K-5 for six years, with total immersion starting in the second half of second grade. And just this year, Sunset Elementary in Bellevue, Wash., kicked off a total immersion Spanish magnet that will eventually include grades K-5.

Some of the districts offering elementary immersion programs continue them into the upper grades. Students from Maryland's Oak View program, for instance, may go on to a junior high that offers a world studies course taught in French and a French language program geared to their level of comprehension. In San Diego, a junior and senior high offer similar opportunities for graduates of the city's two elementary Spanish immersion programs.

All immersion programs are voluntary. They're designed for native English speakers, and the great majority of students enrolled have no prior familiarity with the language being offered.

Critics of total immersion question how well American youngsters can learn academic subjects taught in a language they don't yet speak fluently. But standardized test scores of third graders in the Maryland French immersion program tell the tale.

The math scores of these students are right on target. And although the third graders tend to lag behind their peers in English language skills, by fifth grade they catch up to—and sometimes surpass—students who've been taught in English. Starting in fifth grade, Oak View students do get an hour a day of English grammar instruction, in English.

The growing popularity of immersion programs reflects increasing awareness of the importance of being bilingual. Foreign language instruction at all levels began to surge around 1979, when a report from President Carter's Commission on Foreign Languages and International Studies deplored Americans' traditional inability to speak anything other than English.

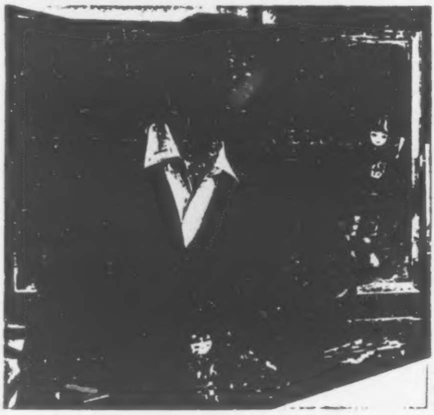
Since that time, one national education report after another has echoed the call. Many state legislatures have responded, imposing or restoring foreign language requirements for high school graduation. Louisiana requires that public schools offer *elementary* students the opportunity to learn a second language. Hawaii is in the process of implementing a similar requirement.

The new interest in foreign language learning has brought several instructional developments.

"A key element of the education reform movement is a commitment to long-term study of a foreign language," notes Claire Gaudiani, assistant director of the Joseph H. Lauder Institute of Management and International Studies at the University of Pennsylvania. "In the past, students usually studied a language for two or three years but rarely advanced beyond a certain point. As a result, most achieved little more than survival skills."

Length of study isn't all that's changed. Elementary schools nationwide report a variety of innovative instructional programs:

▶ Montgomery County, Md., offers both total and partial Spanish immersion programs (in the partial program, morning classes are in English, afternoon classes in Spanish).



Michael Horrick uses dolls and other props to help Long Beach, Calif., high school students become familiar with the Japanese language and culture.

NEA Today, April 1987

Displaying their proficiency in their new language, Maryland first graders vie to answer questions about a book being read to them in French.

► Glastonbury, Conn., *requires* classes in Spanish for all elementary students.

► Wake County, N.C., offers courses in Spanish, French, German, Japanese, and Chinese.

At the secondary level, a growing number of schools offer language magnet programs that concentrate on either international commerce or studies leading to an international baccalaureate (IB).

The IB has been around since 1958, although it's only recently become popular in this country. Over 100 U.S. high schools now offer the program.

Requirements—aimed at advancing intercultural understanding as well as qualifying IB graduates for entry into universities around the world—are rigorous. Program participants follow a detailed syllabus for five prescribed subjects—math, experimental science, social studies, English, and a foreign language—and one elective—like art or music or computer science. They must also complete a theory of knowledge course, write a research paper, and perform community service. Exams for prescribed courses are prepared and graded at IB's international headquarters in Switzerland.

U.S. colleges are beginning to recognize the advanced level of the IB program. Some now waive certain requirements for IB graduates or give them credit for high school work.

In Eugene, Oregon, 180 students at South Eugene and Sheldon High Schools participate in a joint IB program. They can choose to concentrate in one of six languages: Spanish, French, German, Russian, Japanese, or Chinese. The district is considering adding Italian and Hebrew to the curriculum.

"From a practical standpoint, knowing a foreign language can help anyone in today's international business community," says South Eugene High Spanish teacher Doug Kelly. "But many students want to learn another language for its own sake—as a means of furthering cultural exchange."

At Long Beach (Calif.) Polytechnic High School, foreign language instruction in the five-year-old Center for International Commerce (CIC) magnet program focuses on countries doing business in the area—the nations located around the rim of the Pacific Ocean.

The 400 CIC students take at least two years of Spanish, Russian, Mandarin Chinese, or Japanese, along with global economics, diplomatic history, marketing, finance, banking, and computer accounting. Although 80 percent of CIC graduates continue their studies past high school, they're already well prepared for the international business world, notes Japanese teacher Michael Herrick.

"That's important," Herrick adds, "because the commercial world is shrinking and not everyone speaks English. To survive financially, you have to speak a foreign language."

The international business scene is also changing, with new nations assuming key positions—and bringing new popularity to courses in their languages. Spanish maintains its longtime lead as American students' favorite language to study, but French and German—the runners-up for so many years—are now being challenged not only by Japanese but also by Chinese and Russian.

The boom in language instruction seems to have only one limiting factor: a very real shortage of qualified teachers. Contradictory forces are both spurring and stifling the demand for more language instruction.

State and federal officials who demand education improvements frequently refuse to approve the necessary funding. Although Congress has passed a dozen or so foreign language and international education programs in recent years, for example, the Reagan Administration has requested "zero funding" for many of them.

Similarly, because of its increasingly international outlook, American business is hiring, at high salaries, university graduates with foreign language majors—people who once would have turned almost automatically to teaching.

The long-range interests of meeting international business competition and increasing cross-cultural understanding demand that foreign language teaching be made as attractive a career as possible, with substantial rewards for competent teachers.

—*Diane Dismuke*

'Hear No English, See No English, Speak No English'

The emphasis in today's high school foreign language classes is on the spoken word.

"We want students to be comfortable with the language, so we use a natural approach," explains Virginia Senor, a Spanish teacher at Shaw High School in East Cleveland, Ohio. For Senor, building and oral proficiency means that from day one, Spanish is the language spoken in her classroom.

"But," Senor adds, "I want my students to feel secure. So I tell them they needn't speak until they're comfortable with the language—and even then I assure them it's okay to make mistakes."

Virginia Senor

Senor, a 16-year teaching veteran, notes that the days of textbook dependency and vocabulary memorization are fast becoming obsolete. "Today we really want our students to respond physically to their new language," says Senor.

To help them do that, Senor uses props—including a series of flash cards she's created and marketed, recordings of Spanish music and conversations, and videotapes from her travels to Argentina. She even creates a classroom "marketplace" with buyers, sellers, and real merchandise. Students help stock the market with items they no longer need or want.

Students practice grammar and vocabulary by conversing in pairs and small groups. Her classroom is noisy, but it's "*organized* chaos," Senor says.

"Global education" is another key element in the current teaching style of Senor and many other top foreign language teachers. In Senor's classroom, discussions about the culture of Spanish-speaking countries are ongoing. When Senor talks about mealtime, for example, she doesn't equate it to the American concept of lunch but rather explains about the 2 p.m. *hora comida*, when everyone comes together to eat a large meal. Teaching concepts rather than isolated words is the key.

Lynne Campbell

French teacher Olga Robinson of Newton (Mass.) South High School also creates many of her own classroom materials. From videotapes she took last year during travels in France, Belgium, Senegal, and Tunisia on a Rockefeller grant, she's made a documentary showing the importance of the French language in these countries.

Robinson doesn't adhere to just one textbook, either, but relies on several texts from different sources. And she, too, uses immersion, speaking French exclusively—except when explaining grammatical concepts to beginning classes.

"Most texts I use are in French," she notes, "and that includes explanations about grammar."

In Glastonbury (Conn.) High School, Russian, Spanish, and French teacher Lynne Campbell cites the importance of students' traveling to countries where their new language is spoken. Campbell's school district will sponsor student trips to France, Spain, and the Caribbean this summer. In past years, there've been student trips to Canada and Russia.

Campbell herself spent part of last summer studying at Leningrad's Herzen Pedagogical Institute. She was one of 15 U.S. teachers of Russian chosen to participate in the U.S./U.S.S.R. Summer Exchange of High School Language Teachers, an outgrowth of last year's Cultural Exchange Agreement between the two countries. It was Campbell's second trip to the U.S.S.R.

"The best way for language teachers to improve their facility in a language is to go where it's spoken and use it to get around," Campbell maintains. "To bring that firsthand knowledge back to the kids is priceless."

—*D.D.*

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FOREIGN LANGUAGE EDUCATION FOR INTERNATIONAL ECONOMIC COMPETITIVENESS: RECENT INITIATIVES

J. David Edwards, Joint National Committee for Languages/CLOIS

In November 1986, the Southern Governors' Association published a report, "Cornerstone of Competition," which states in its introduction that "each day, we pay a political and economic price for our inability to understand and communicate with our global neighbors" (Advisory Council on Education, 1986). This report contains numerous recommendations intended to "build support for international education in the business and educational communities." Recent studies by the Carnegie Forum's Taskforce on Teaching as a Profession (1986), the Council of Chief State School Officers (1985), and the Business-Higher Education Forum (1986), among others, have sounded the theme of economic interdependence and noted the importance of international education. If the United States is to deal with a $148 billion trade deficit, policymakers must know something about the world in which the trade is carried on. In short, economic competitiveness depends on international knowledge.

The theme of economic competitiveness will certainly govern decisions made by national policymakers through the rest of this decade and probably into the next century. The symbol of the Toyota has become a longer-term, subtler version of the threatening symbol Sputnik provided in the 1950s. Just as one determined educational policy for more than a decade, the other will determine educational policies made as a new century approaches. Given the international financial structure created at the 1944 Bretton Woods conference, increased demands for economic equity by less developed countries, the renewed economic vigor of Japan and Western Europe, and a $2 trillion national deficit, it would be foolish to suggest that simply learning a second language will erase these problems. But it would be equally foolish to assume that American businesses can regain competitiveness without a knowlege of other nations' economies and politics, without an understanding of their cultures, and without an ability to communicate in their languages.

"Percolating" Recognition of Need

While the Reagan administration has expressed a national commitment to excellence in education, the greatest support in this area in real terms has been from the public, state leaders, and Congress. They have recognized and moved to address national needs for foreign languages and international awareness. Unlike the era of the National Defense Education Act, when national leadership created educational reforms that "trickled down" to the states and localities, recent reforms in language study and international education have actually "percolated up" from the states.

Inside:

Involving Limited-English-Proficient Parents as Tutors in Their Children's Education, by Carmen Simich-Dudgeon, Center for Applied Linguistics *Page 3*

News from the ERIC Clearinghouse on Languages and Linguistics *Page 2*

Public support for foreign language study is a nebulous factor at best, but it appears to be growing and is being reinforced by increased media attention. A recent Media General-Associated Press poll found that 86 percent of those surveyed said they felt that it was important to study a second language in elementary school (Kilman, 1986). Recent articles on U.S. language competence, such as the front-page *New York Times* story by Gruson (1986), are important, but perhaps even more important are the articles in the *Hagerstown* (MD) *Daily Mail* ("Kids Immersed," 1987), the *Corvallis* (OR) *Gazette-Times* (Jones, 1985), and other small newspapers around the nation.

State Initiatives

Early in 1984, the Joint National Committee for Languages (JNCL) began tracking reforms in the various states affecting language study and international education (Draper, 1986). In the three reports issued since then, the changes in state policies have been truly remarkable. Over the last few years, 31 states have instituted some form of language requirement (e.g., for college admission), and all but four have reported activities

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addressing their language needs. Sixteen states have reinstituted courses in world geography and world history. Many have reinstituted language requirements for attending state universities, and this change is having a notable trickle-down effect.

New York has adopted an action plan for global education that provides aid to school districts based on foreign language enrollments, requires students to pass a proficiency exam, and requires all students to have studied a foreign language by ninth grade. Louisiana is not far behind by phasing in a program over the next four years that will have all students study a foreign language in grades four through eight. It has created a number of immersion programs, required a foreign language for admission to state universities , and created two state councils for the development of Spanish and French. Florida is providing incentive funds for foreign language in the elementary school (FLES) programs; it is providing awards for outstanding high school students, and it has set requirements for admission to state universities. Texas, California, Kentucky, Virginia, Illinois, and South Carolina have all adopted some rigorous provisions to improve foreign language study in their states (Draper, 1986).

Enrollments are up considerably. For example, Virginia has more students studying foreign languages now than at any time since World War II, and Wisconsin has more foreign language students than at any time since 1917. Texas, Florida, New York, and Oklahoma have experienced 50 percent increases in their enrollments since 1983. Comparable increases are taking place in other states as well (Draper, 1986). Higher education enrollments in Chinese, Russian, and Japanese are growing fast (with increases of 16, 26, and 40 percent respectively), and German, French, Italian, and Spanish have made notable gains (Brod & Devens, 1985). Current and ongoing evaluations of high school language enrollments are producing preliminary indications that conservatively estimate *an across-the-board national increase* of about seven percent since 1982.

National Initiatives

At the national level, a great deal of legislation and research has been initiated in recent years. In the seven years since the President's Commission on Foreign Languages and International Studies, the number of bills and amendments dealing with languages and international education concerns has increased each year. Despite regular requests from the Office of Management and Budget to eliminate most of the federal programs dealing with international awareness, Congress has actually slightly increased funding for foreign languages, exchanges, and intelligence. Also, Congress has mandated a number of studies, such as the following:

- the National Institute of Education examined U.S. national language priorities (1981);
- the service academies considered instituting language requirements (1982, 1984);
- the National Security Agency explored the creation of a foreign language reserve, listing people with skills who might be available for security clearance (1983);
- the Department of Defense in 1983 considered awarding a bonus to employees who learn the language of the country in which they are stationed; and
- the Department of Education was asked to examine the concept of a national endowment for international education (1986).

A number of new programs have been created during this period, such as the following: a new Soviet and East European Research and Training program; a Congress-Bundestag Exchange program; a U.S. Peace Institute; a National Endowment for Democracy; and an English Language by Broadcast program. In addition, as a result of congressional direction, two embassies—in Uruguay and Senegal—are by policy language competent, whereby every employee from the guards to the ambassador speaks the official language of the country.

The 98th Congress passed the Education for Economic Security Act with provisions in the Secretary of Education's Discretionary Fund for grants for curriculum development and teacher training in "critical" foreign languages. The same Congress added two new titles to the Library Services and Construction Act to provide funds for foreign language materials and literacy programs for libraries.

Last year, the 99th Congress passed the U.S. Scholarship Program for Developing Areas, the Central American Scholarship Program, and the Japanese Technical Literature Act, and created the Fascell Fellowships to broaden exposure of embassy and consulate personnel to Soviet and Eastern European cultures. In addition, the 99th Congress passed and the president signed the National Defense Authorization Act with provisions for a bonus for members of the armed forces on the basis of their proficiency in a second language.

Also in the last session, Congress reauthorized the 1986 Higher Education Act. Title VI of this act includes a number of new provisions for language study, such as the creation of two to five regional language centers to focus on foreign language pedagogy. It contains provisions for intensive summer foreign language institutes and assistance for universities to acquire foreign language publications, and it requires the Education Department to assist in the publication of materials in the less commonly taught languages. Rep. Leon E. Panetta (D-Calif.) successfully amended the bill to provide grants to colleges and universities for model language programs, funds for teacher training, and internships for foreign language students to work overseas. Sen. Paul Simon (D-Ill.) amended the legislation to mandate a study of a national endowment for international education.

Funding Problems

These improvements are impressive indeed. However, most of these programs have received minimal amounts of funding, or, as in the case of the vital new programs in Title VI, they have not been funded at all. Almost all have had to fight for their very existence each fiscal year. For example, the president's budget request for next year would entirely eliminate funding for 10 language/international programs and reduce funding for others in the Education Department. Moreover, the national deficit remains the most compelling issue facing Congress. Last year, the Gramm-Rudman-Hollings deficit-reduction act posed an immense challenge. If this law remains in effect, the 100th Congress will have to make huge budget reductions to meet its limitations. Given the

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political reality that only a limited pool of programs exist whose funding can actually be reduced, it seems unlikely that education will escape the budget axe.

Congressional Commitment

On the other hand, the 100th Congress appears committed to addressing new legislation dealing with elementary and secondary education, and the issue, raised earlier, of economic competitiveness. This Congress has to reauthorize the Education Consolidation and Improvement Act containing block grants and dealing with compensatory education. Rep. Augustus Hawkins (D-Calif.), Chairman of the House Education Committee, has determined that while they are at it they may as well reauthorize all of the legislation for schools, including the Education for Economic Security Act (EESA), Bilingual Education, Magnet Schools, and so forth. A draft set of recommendations by the JNCL Policy Committee (1986) contains a number of suggestions for changes in current national policies, such as the following:

- strengthening developmental language programs in the Bilingual Education Act;
- removing the restrictions in EESA so that languages can compete equally with mathematics and science;
- strengthening support for the schools in the Secretary's Discretionary Fund;
- reviving a cultural awareness program;
- considering new literacy programs;
- creating outstanding foreign language teacher awards similar to the National Science Foundation's mathematics/science awards; and
- increasing teacher training, including support for study abroad.

There seems little doubt that Congress will pass a trade bill. Considerable question persists, however, about the exact nature of such a bill. Last year, the House of Representatives passed the Omnibus Trade Bill, which later died in the Senate, with $400 million in provisions on education for economic competitiveness, including teacher training, research, and technological development in mathematics, science, and foreign languages. Many of the trade bills already introduced in this Congress have provisions for education. If any of these trade bills are to address education for economic competitiveness seriously, they must consider a number of issues. First, international competitiveness cannot be achieved by focusing just on mathematics, science, and engineering while ignoring international studies and foreign languages. Second, state programs such as the Florida-Brazil Institute, the Maryland Center for International Studies, and the Tennessee Foreign Language Institute may provide valuable models to be supported and replicated elsewhere. Third, the summer intensive language institutes created but not funded in Title VI can provide much-needed training for students, teachers, and business professionals. Fourth, there is a vital and immediate need for support to integrate language and international studies into the curricula of business schools. Fifth, there is mounting evidence that international internships are among the best ways to acquire international business expertise. Finally, and most important, it will be impossible to develop the levels or degrees of language competence and international knowledge necessary to compete globally without a strong feeder system or pipeline of students who have begun studying languages, geography, history, and other international subjects at the elementary school level.

In conclusion, it is likely that other legislation, such as a new foreign language bill, a bill creating a bureau of translation services, or the National Defense Education Act will be introduced or reintroduced in this Congress. There is also some discussion of new legislation to create a National Endowment for Foreign Languages and International Studies. Unlike the newly created, privately funded Foreign Language Resource Center, which has raised some legitimate technical and philosophical differences within the education community, the National Endowment is still in the gestation stage. At this stage, important questions remain, such as the following:

- should it be an endowment (such as the National Endowment for the Humanities), a foundation (such as the NSF), or a fund (such as the Highway Trust Fund)?;
- where will the money come from?;
- will it threaten existing programs by blurring their functions and reducing their appropriations? Might it not preclude other new incremental programs in areas such as commerce, defense, and tourism?
- what functions will it perform?

These questions and the ensuing discussions can be important and healthy, as long as policymakers keep in mind that while opinions differ over methodologies, there is a common goal– a language-competent, globally aware, internationally competitive United States.

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Senator PELL. Dr. Parnell, I was struck with your statement. I think it is estimated that the average American will change his job five times in his lifetime; in other words, as was said earlier, once every decade, on an average.

Do you think that the students are graduating from high school with enough educational tools to be able to cope with this variety of jobs?

Dr. PARNELL. Generally, no, I do not think they are. We need a better math base, a better science base, a better literacy base, for some students a better foreign language base.

But one of the great contributions that vocational technical education can make to all of that is to help students understand why they are learning whatever it is they are learning. And when the Secretary of Education puts a "zero" behind vocational education, he totally overlooks the fact that this problem of motivating students to see why they are learning and how—you see, the real world is over here, and education is over here, and the twain shall never meet, for an awful lot of students. We must bring that together in some way.

Senator PELL. Dr. Parks, do you think it would be a good idea if we had some metric education? As of now, we are using goods in two systems—one for internal use, in inches, or the English system. Then for exporting, it has to be the metric system, because as you know, only three other small countries, I think in Africa, do not operate on the metric system.

I am curious as to what your view would be with regard to a metric component of the education bill, mindful of our competitive position.

Dr. PARKS. Senator, we have had some experience with the metric education concern, and I think where we are coming down is that rather than teach a dual system, we ought to teach students how to convert the American system to a metric system when needed. If they understand the conversion process and can apply it, they can deal with the foreign market that deals in metric. But to teach two separate systems has not proved to be efficient in the process. And we have found that where we have had to teach metric, we have taught it when the industry has required it. But our focus has been and will continue to be, particularly with the new emphasis we have on principles of technology, which is an applied physics program for vocational students, that we are teaching the students how to convert the American system to a metric system and apply that where needed, rather than teach a dual system.

Senator PELL. Or, shouldn't we go to the nub of the problem and convert to the metric system ourselves?

Dr. PARKS. That is true, but I do not think that is an educational problem. I think that is a problem that is going to have to be taken on at a higher level.

I think in fact, the business and industrial community will set that standard if in fact it happens. If they demand it, we will teach it. So far the automotive industry has been the only one that has dabbled in that area, and it has been the foreign automotive industry that has done it, not the American automotive industry.

Senator PELL. Excuse me. The American automotive industry has followed suit. I think Ford did go metric. I think our industry is now on the metric system, or moving in that direction.

Dr. PARKS. But the industry will set the standard, I think, and then education will support that standard.

Senator PELL. Dr. Parnell, do you have some thoughts on this question?

Dr. PARNELL. Yes, I agree entirely with what Dr. Parks has said. There is a good bit going on around the country in metric education, but there is also a good bit of resistance on the part of a lot of people. And that is, again, another issue which is really a national policy issue, and I do not think we will ever really attack the metric education issue unless there is a national policy statement saying this is what the country wants to do.

Senator PELL. Thank you.

Dr. Gaudiani, I used to live in a city that had three names—Bratislava, Pozsony, and Pressburg—and the people there spoke three languages naturally and easily, with no problems at all; they did not have to be brainwashed to do it.

Is there any way that we can approach the same result in our language teaching?

Dr. GAUDIANI. Senator, I think the first thing we have to do is stop believing that if you were born in Duluth, you did not get something here in your larynx that people in Switzerland got. In other words, there is a controlling myth in the United States that we cannot do languages. And I think what we have to admit is that we are not linguistically disabled; we are linguistically disadvantaged. That is, we do not have enough exposure, early enough, to speakers of other languages. This has to do with the size of our country and our history. I think as we now see ourselves in a different relationship to the rest of the world, we have to begin to admit that the students now in school will have consistent contact with speakers of other languages. The satellite interactive video conferencing that businesses will use, that education will use, is going to put people face-to-face without having to leave their own offices or their own classrooms.

We have got to begin earlier to make "speaking in tongues" a normal expectation for an American, and just undo this mythology than Americans can learn languages.

Senator PELL. As you suggest, we have sort of an inferiority complex when it comes to languages; on the other hand, we have a superiority complex, I think, sometimes when we travel that people are stupid if they do not talk English.

Dr. GAUDIANI. That is right.

Senator PELL. We have an insular view there.

Dr. GAUDIANI. I was at a meeting recently in Washington where someone stood up and, with a gracefully light accent, said to me, "You know, increasingly, when I am in European meetings, I see that we no longer defer to a monolingual North American when it will mean that all of us will have to move to our third-best language, English. We simply speak our second-best language, French or German, and the monolingual North American sits there and does not understand the proceedings."

I had never heard anyone report that to me before, and I think we have to face this kind of situation for the future.

Senator **Pell**. I commend the Lauder Institute for all they are doing and for the fact that at the Lauder Institute, you have a foreign language requirement to enter. I used to be in the Foreign Service, and it was always required you knew at least one language, maybe two. I remember during college, you had to have at least one language to graduate; if you went on to a doctorate, you had to have two languages in addition to English. And then, from the viewpoint of opening up access both to the Foreign Service and the fields of scholarship, we wiped out the education requirement for a language.

How do you balance the two—access to the Foreign Service, for example, which I think is important; and the importance of knowing a foreign language before you enter? When you learn the language, you also learn that there is a culture and a history of countries besides the United States.

Dr. **Gaudiani**. I think we simply need a larger pool on which the Foreign Service as well as the corporate sector and the medical, legal, and engineering sectors can draw on to provide personnel for its internationally oriented work. That is, we have just come to believe that our doctors and our lawyers and our engineers, for instance, do not need foreign languages.

The dream that I talked about means that 20 percent of our doctors, lawyers and engineers as well as Foreign Service Officers would be capable of functioning in another language. If that basic pool is larger, then access will not be a problem for the Foreign Service.

Senator **Pell**. What would be your view, specifically, though—do you think people entering the Foreign Service should know a foreign language first?

Dr. **Gaudiani**. Absolutely.

Senator **Pell**. And do you think people graduating from college should have one foreign language before they get their A.B.?

Dr. **Gaudiani**. Yes.

Senator **Pell**. Good. What would be your view, Dr. Edwards?

Dr. **Edwards**. I would concur in everything Claire has said. I think the really important piece of that is that we broaden the pool. These are some very mixed reactions among the associations I represent regarding the idea of requirements. It is an "iffy" idea to force people to learn things. We would, however, love to see, to quote a policy statement that we issued, every American have access to the opportunity to learn a second language. And as you yourself know, it is hard work to learn a language, and it needs to start earlier.

To a degree, one of the problems we have in this country is we look for the magic pill that we can take and, bang, we will know the language, we are fluent, and each year, we will take the pill and it will keep us using it as well. That is the other problem, you lose it, if you don't use it.

Senator **Pell**. I think you have to keep it up, as well, because you can lose a foreign language. I remember when I first ran for this job I am in now I made speeches in Portuguese, French and

Italian. We have the most ethnic State in the United States. I could not do that at this point.

Do you feel that there are any model programs that should be emulated in foreign languages?

Dr. EDWARDS. There are some very, very good ones, Senator.

Senator PELL. Give me an example.

Dr. EDWARDS. The one I cited at the Oak View School here. There are some good immersion programs in the elementary and secondary schools. Cincinnati has some very good programs. In fact, the woman Miriam Met, who built that program is now developing programs in Montgomery County. And they are thinking about the possibility of doing some immersion programs in Russian, Japanese, and Chinese, which would be very exciting.

Michigan has a couple of good programs. Florida has encouraged FLES programs, Foreign Language in the Elementary Schools, that are taking off and, in fact, beginning to develop around the Miami area with some consistency. I will be glad to provide additional information.

The exciting thing, I think, Senator Pell, is there is a dynamic in language teaching right now that is taking place, and the focus on communication is exciting everybody. Further, the proficiency movement also allows language teachers now to say to students, "We can tell you what you are going to have at the end of two years and exactly what your skills are." It gets away from the NDEA phenomenon of everybody expecting to be fluent in two years and then being furious at the language profession when they were not.

Senator PELL. Thank you very much.

Yes, Dr. Parnell?

Dr. PARNELL. Mr. Chairman, I would just like to make a comment with regard to foreign language. Do not overlook the opportunity in S. 406 to encourage technician education in foreign languages.

There is a tremendous need for people, not necessarily the formal, traditional instruction in foreign language, but a conversational ability in foreign language for a whole range of technicians, and it would be a great opportunity in S. 406 to motivate that.

Senator PELL. Dr. Gaudiani?

Dr. GAUDIANI. Just to conclude, I think a great deal of what we can do now can be oriented toward incentives. Our students are required to achieve this oral proficiency level superior (FSI-level 3) in order to get their degree. That creates an incentive and a requirement for them. But they enter this program knowing that they are going to meet that kind of a challenge. The incentive is the kind of a career path they are going to have.

I think all along the way, people can be offered incentives, whether they are going to remain with a high school education and eventually go on to community colleges, or whether they are going to go through college and perhaps on to graduate school. We need to give citizens ways to see that additional foreign language learning will provide them additional opportunities and options in their career paths.

Senator PELL. Thank you very much indeed.

Senator Stafford?

Senator **Stafford**. Thank you very much.

Dr. Gaudiani, speaking of languages, I am reminded that on a road leading from Burlington, Vermont to Montreal and inside the Canadian border, there is a tavern with a large sign in front of it which proclaims: "English spoken; American understood." [Laughter.]

Senator **Stafford**. So maybe we speak two languages already.

I was interested in the program which you described, Dr. Gaudiani, and I noted you take in 50 aspirants each year.

Dr. **Gaudiani**. Yes.

Senator **Stafford**. What sort of an attrition rate do you have over the 24 months?

Dr. **Gaudiani**. We have lost one student in the last three years.

Senator **Stafford**. That is very good. They must be pretty well-grounded in language before you get them, then.

Dr. **Gaudiani**. They have to pass a 20-minute oral interview in the language before they are admitted. We have about 400 applicants per year, and they have to have three to five years' work experience, so they have an average age of around 27.

Senator **Stafford**. Thank you.

Dr. Parnell, from what you have said about vocational education, I would assume you would agree with me that one of the more grievous errors our Secretary of Education has made has been to propose that there be no vocational education in this country as far as the Federal Government is concerned, after fiscal year 1987 that we are in now.

Dr. **Parnell**. I certainly do agree with you. In fact, it is astounding to me that he would even recommend that, particularly in view of the need for a more competitive work force in the world.

There are so many students that sit in the middle between the 25 yard line and the 75 yard line of the academic playing field that really are not very well-motivated with their academic experience. And the great contribution that vocational technical education can make for them is to help them see the reality of that. And evidently, that thought has not broken through.

Senator **Stafford**. You mention in your statement that we should do more to encourage partnership programs between high schools and community colleges to reach high school dropouts. Could you comment just a little more on that?

Dr. **Parnell**. Well, we have a good number of examples across the country. One of them is in Senator Pell's State of Rhode Island, where high schools and community colleges are trying to join together in something we are calling a "tech prep associate degree program" in grades 11, 12, 13 and 14. This does not mean taking students out of high school, but instead getting high schools and colleges to agree upon the curriculum, a four-year curriculum, that would prepare technicians. It is a technical education program—there would be a math base, a science base, a literacy base, along with the technical education.

Dr. Parks' State of Ohio does have some things going in that same area. I think it is a very hopeful sign, and we are seeing some good things happen out of that.

Senator **Stafford**. Thank you very much.

Dr. Parks, in your view, what can we do to bring the vocational community and the business community closer together? This Committee has heard testimony, some as recently as last week, which suggests that business is not satisfied with vocational education.

Dr. PARKS. At the expense of sounding less than humble, in the main I do not think that is true in Ohio. We have had some excellent working relationships with business and industry, and they are growing. And I think what we need to do is do a better job of assessing the precise needs of business and industry and then be willing to change our programs in such a fashion that it will accommodate those needs.

We have to be sure—I think the message is clear from business and industry that we need a more literate adult worker, and they need to be proficient in the areas of math application and communications application. And I think where we might have missed the message a bit is we have interpreted some of this recent educational reform movement as being more math and more communications, and that is not what the business community is telling us.

They are telling us we need better applied math and better applied communications and better applied science understanding, and that is the direction we are moving in Ohio, and we have gotten great support from the industrial and business community when we have moved that way.

Senator STAFFORD. Well, I thank you all very much.

I think one of the problems we Americans have may be not that we take some language when we are in high school and college, but in my case, 50 years or more after I took a fair amount of French, with no chance to use it hardly, I have pretty much forgotten how to speak it—I can read it a little bit. I leave here to go to a meeting with the Chairman of the German Bundesbank's Foreign Relations Committee, and I wish I could speak either German or French, but we will have to speak in English.

Senator PELL. Thank you very much, Senator Stafford.

I would ask unanimous consent that statements submitted by Senators Hatch and Simon inserted in the beginning of today's hearing.

I am sure Senator Simon would have been particularly interested in the testimony of Dr. Gaudiani and Dr. Edwards, as he is the lead man in the Senate for foreign language study and its importance.

I would also ask unanimous consent that the record remain open for additional statements and questions.

[Additional material supplied for the record follows:]

STATEMENT OF

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FOR THE
SENATE COMMITTEE ON LABOR AND HUMAN RESOURCES
SUBCOMMITTEE ON EDUCATION, ARTS AND THE HUMANITIES
CONGRESS OF THE UNITED STATES

MARCH 23, 1987

Chairman Pell, members of the Senate Subcommittee on Education, I appreciate the opportunity to present testimony on the proposed legislation regarding education for competitiveness. Our nation's economy is in a state of transition and rapid change not previously experienced in our country. Some of these changes include greater effect of foreign competition on U.S. industries, shift in the economy based on manufacturing to one based on service and information, greater use of technology in the workplace and changing demographics of the workforce. The changes which are occurring today in the economy and the workforce have made increasing our competitiveness in world markets both a State and national objective. It is encouraging to know the high priority Congress has given to education in terms of increasing our nation's competitiveness.

In my home State of New York we are well aware of the paradoxes and challenges being created by the changes in the economy and the workforce. In New York City our growing finance, insurance and real estate sector produces job wages higher than those lost during the 1970's in manufacturing areas. But these new jobs require skill levels much higher than previously expected of workers. At the same time there is a growing group in New York City and other urban areas which continue to live in a cycle of poverty and dependency, lacking both basic and occupational skills and dependent on public assistance to meet their basic economic needs.

In areas of upstate New York State the loss of manufacturing jobs has resulted in significant numbers of dislocated workers needing education and training both in basic skills and new occupational areas or facing jobs in lower paid service occupations. The jobs in manufacturing which seemed so permanent and secure for many years for these workers have been replaced by jobs in service occupations or as temporary employment. Many families that have managed to keep up with the cost of living do so only because they have adjusted their life style or they receive income from more than one member of the family. My testimony today will look at some of the economic changes and trends in our State and nation and the impact of technology on the education and job skill needs of the American workforce which is trying to remain competitive in a world economy. The testimony will also look at the role our educational institutions can play in providing the education and training needed both for the workforce of today which needs to upgrade its basic education and occupational skills and for our future workforce to prevent another generation of dislocated workers.

The testimony is organized around the following areas in which education can contribute to the nation's competitiveness: (1) the development and implementation of programs to help workers who have been displaced from employment by changes in technology and shifts in the economy; (2) the development and implementation of programs to meet workplace literacy needs of workers in businesses that are trying to remain competitive in a global economy, and (3) the development and implementation of programs to help business and industry deal with the impact of technology on the world of work.

Meeting the Needs of Displaced Workers

Title III of the Education for Competitive America Act (S 406) provides for an authorization of funds for vocational training under Title III of the Vocational Education Act. Funds would be used to provide training, retraining and employment services for workers adversely affected by foreign competition, and to assist workers to prepare for jobs in high technology occupations. We in New York State support additional funding for this purpose. Displacement of workers is for the most part due to changes in the economy and the nature of work. During the past 25 years, the United States has shifted from relative economic isolation to global interdependence. More than 70 percent of our goods producing industries are subject to foreign competition as compared to only 20 percent twenty years ago. In many cases those industries are not faring well in the growing international competition, causing plant shutdowns or relocation and worker displacement.

Our society and economy are rapidly changing and out of balance. For some who are thriving in information and high technology industries, it is a time of great growth. For those who are being displaced from work that seemed solid, important and permanent, it is a time of crisis, and uncertainty. For the long-term unemployed and educationally and economically disadvantaged, the possibility of a good job and a place in society is growing more remote.

Characteristics of Dislocated Workers

According to a report by the Congressional Office of Technology Assessment entitled "Technology and Structural Unemployment: Reemploying Displaced Adults," 11.5 million American workers lost jobs because of plant shutdowns, or shrinking output over the 5 years 1979 to 1984. Of those who lost their jobs during the period, 5.1 million had held their former jobs for 3 or more years and could therefore be counted as dislocated workers. A Federal Bureau of Labor Statistics Study of these displaced workers showed that 43 percent were out of work for at least 27 weeks, and that nearly 25 percent had periods of joblessness that added up to a year or more. Many who were reemployed took a pay cut in their new jobs. Nearly half of all workers who were displaced worked in manufacturing industries. The Office of Technology Assessment Report estimated that only 5% of eligible displaced workers were being served in Job Training Partnership Act programs.

Funding of Training Programs

Funding of occupational training for dislocated and other unemployed workers has been an issue at both the State and national levels. It is important to link State and Federal programs in this area. In New York State we have used two approaches to funding training for dislocated workers. One approach is the establishment of a tuition assistance program for dislocated workers. A second approach is the funding of training programs which are for specific businesses and which are directed at dislocated workers.

Section 7 of the New York State Occupational Retraining and Reemployment Act (ORRA-7), provides a tuition assistance program for dislocated workers using funds under Title III of the Job Training Partnership Act. ORRA-7 authorizes up to $1,500 to be paid to approved training providers for each certified eligible person enrolled in a program leading to employment in designated occupational fields with favorable employment opportunities.

Program Standards

In order to be eligible to participate in this program, training providers must be licensed or certified by the State Education Department, offer approved non-degree programs with a minimum of 320 clock hours of instruction, and provide a record of program completers and placements for two years prior to the date of application.

Eligibility of Individuals

In order to qualify for participation in the program, each dislocated worker must be registered with and be certified as eligible by the local New York State Department of Labor Job Service Office. Applicants must be individuals who (1) have been terminated or have received notice of termination or layoff from employment and are eligible for, currently collecting, or have exhausted their entitlement to unemployment compensation, and are unlikely to return to their previous industry or occupation; (2) have been terminated from, or have received a notice of termination of employment as a result of any permanent closure of a plant or facility; or (3) are long term unemployed and have limited opportunities for employment or reemployment in the same or a similar occupation in the area in which such individuals reside, including older individuals who have substantial barriers to employment by reason of age. The program permits those individuals participating to continue to collect unemployment compensation while participating in the training program.

Eligible Agencies

Agencies eligible to apply include private sector employers, employee unions, community-based organizations, joint apprentice councils, local education agencies, boards of cooperative educational services, postsecondary institutions, licensed private schools, registered business schools, Service Delivery Area grant recipients under the Job Training Partnership Act (JTPA), and Private Industry Councils (PIC), as defined by the JTPA.

The ORRA-7 tuition assistance program is a joint venture between the New York State Departments of Labor and Education. As indicated, the Department of Labor's Job Service certifies the dislocated worker as eligible to participate in the program. The Job Service is also responsible for informing dislocated workers about the program. The Education Department is responsible for approving programs, for certifying agencies as eligible to participate and for making payments to the training providers. The Labor Department and the Education Department determine jointly the occupations with favorable employment opportunities.

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The ORRA-7 program has grown steadily in New York State over the relatively short period of time it has been in operation. As of December 31, 1986 there were 3,636 students enrolled in training programs, with 148 agencies approved as providers to offer some 1170 programs. The average ORRA #7 student spends 43.5 weeks in a training program and his/her attendance rate is 90.7 percent. The average cost of a week of training for each student in ORRA #7 is less than $35. The placement rate for those who have completed training is approximately 63 percent statewide, based on statistics submitted by the State Labor Department to the Federal government, as of June 30, 1986. Furthermore the number of ORRA #7 participants continuing their education and training, either in college degree or other advance training is approximately 15 to 20 percent. These dislocated workers are receiving the skills they need to be competitive in the workplace of the future.

Unfortunately, because demand for the tuition assistance has been so great, funds for ORRA-7 have already been exhausted before the end of the Federal fiscal year on June 30, 1987. Approximately 1600 individuals who have applied for assistance to date cannot be provided with tuition assistance because funds are no longer available for this fiscal year. There is a need for increased Federal funding to ensure that training opportunities are provided to all who could benefit by them to obtain productive employment.

The tuition assistance program administered by the State Education Department under Section 7 of the Occupational Retraining and Reemployment Act (ORRA 7) has been successful because of three key features: (1) it offers dislocated workers choice in the selection of training programs; (2) it provides funding only for training programs in occupations having favorable employment opportunities; (3) it draws on the existing educational resources rather than establishing duplicative training programs. We should keep these key features in mind as we look to design successful dislocated worker programs in the future.

Another program administered by the Education Department which addresses the needs of displaced workers is Section 6 of the Occupational Retraining and Reemployment Act (ORRA-6) which provides funds for employer-specific training programs for dislocated workers. In addition to causing disruption in the labor market, the changing economy and the introduction of advanced technology are substantially increasing the training needs of business and industry. Larger businesses have their own training units to meet those needs, but the vast majority of businesses in the State are small business which do not have the resources to offer company run training programs.

We, therefore, have established the ORRA-6 employer-specific training program to meet the workforce needs of business and industry and the needs of dislocated workers for employment. This program assumes that dislocated workers want a job quickly and the best way to do this is to connect training to a job located in a specific industry.

Regional Education Centers for Economic Development

Through a statewide network of ten Regional Education Centers for Economic Development, the Education Department works with firms and with economic developers to design customized training programs to help firms remain, expand or come into the State. The Regional Education Centers for Economic Development help to identify training needs of business and industry related to retention, attraction, expansion or technological upgrading and arrange for business specific training programs to address these needs. Each Center is governed by a coordinating committee with representatives of secondary and postsecondary institutions, business and industry, economic developers, labor, vocational rehabilitation and other areas.

A key feature of the Employer Specific Training Program, is that working through the 10 Regional Education Centers for Economic Development has grown to be an integral part of our State's strategy for assisting New York State's businesses to upgrade skills of workers and meet changing demands of the economy. Last year the program served approximately 35,000 trainees and more than 500 individual firms. Forty projects were funded with JTPA Title III funds allocated under ORRA-6, serving 1,031 dislocated workers. Of those completing the program, approximately 72 percent were placed in jobs after training, with a per participant cost of $1,935.

The benefits of the employer-specific training program go beyond meeting the needs of individuals and companies. Employer-specific skills training program can have a beneficial impact on the education agencies and institutions providing the training, as well as on the companies and individual workers for whom the training was provided. Benefits reported by educational agencies include: curriculum enhancement, improved facilities and equipment, skills upgrading of education agency instructors; increased staffing to meet industry needs; increased adult enrollments; improved use of facilities; and other indicators of increased effectiveness of education agencies in serving as training specialists for business and industry.

Both the programs directed at meeting the training needs of business and industry and the programs directed at providing financial assistance for individuals to allow for choice of training take advantage of the vast education system that is available in New York State to provide training. Over 1200 educational agencies, including local school districts, BOCES, community colleges, agricultural and technical colleges, selected four-year postsecondary institutions, licensed private vocational schools and registered business schools, are currently available to operate occupational education and training programs.

Restructuring Our Education System

In order to ensure that appropriate education and training programs are available, we need to maintain and continue to build on the capacity of the delivery system for vocational education to offer quality programs that are up-to-date. The changes in the economy and business and industry which are causing us to look at the needs of dislocated workers for education and training are also reasons for reviewing the overall structure of the educational system and the opportunities of programs for preparing individuals to function in the labor market of the future. The New York State Education Department has made such a review and has developed a series of educational reforms to increase student achievement and improve educational results.

One area that has been completely restructured is occupational education programs for students in grades 7 through 12. The secondary occupational education program now includes a diversified curriculum which reinforces academic skills and which provides students with broad transferable skills, core occupational skills for clusters of jobs, and specialized skills needed for employment. This new program not only provides students with skills needed for entry level employment but also with those skills needed to be able to advance in a career or to participate in additional training programs. It also provides students with skills that apply to more than one specific job and so gives them the flexibility to change occupations. The new occupational education program will hopefully help to minimize the negative effects of worker dislocations in the future.

During the relatively short history of worker retraining programs in New York, two major results have been observed beyond the benefits to the individuals who have been served. The first is the way in which existing educational institutions have responded to a set of needs of dislocated workers. The institutions have been able to use existing capacity as a base and build on that base in very flexible ways. What has been critical, however, that this core capacity already existed in educational institutions and did not have to be created from scratch. In responding to the needs of dislocated workers vocational education agencies have expanded their program offerings as well as support services such as counseling and placement. This additional strength, in turn, makes the agencies even more capable to respond to future needs. The provisions of Title III of the proposed Education for Competitive America Act (S 406) would clearly provide a major source of funds for strengthening the capacity of the existing providers to retrain dislocated workers. Based on past history, we anticipate that nearly 7,000 additional workers in New York State could be retrained with these funds.

The second result which goes beyond the training provided to dislocated workers is experience gained by coordinating various groups that participate in the retraining programs. Many different agencies and levels of government have had to work together to assure the success of our dislocated workers program. Each has contributed their unique strengths to that success. The State Commerce Department has helped identify the impending employment dislocation, taken action to help maintain employment, but if unsuccessful, alerted the Education Department of the anticipated needs. The Labor Department has provided services to the dislocated workers during their most distressing period by providing evaluation, certification and, following retraining, job search assistance. The education system, through the existing network of vocational programs throughout New York State, has provided the critical training and support services which has been made possible by the retraining funds. Business groups have provided exceptional support at various stages of the whole process. While there have been difficulties as the various groups have contributed their various capabilities, they have learned to create a strength beyond their separate capacities. Through specialization and coordination of their efforts, the resulting system provides a continuity of support to dislocated workers and an existing resource for expansion as needed.

Need for Literacy in the Workplace

One critical aspect of efforts to prevent worker dislocation and to help dislocated workers adjust to the changes in the economy and become reemployed, is workplace literacy. The Office of Technology Assessment Report discussed earlier in the testimony noted that remedial education for the large number of displaced workers lacking basic skills is a clear but unmet need. A recent National Assessment of Education Progress (NAEP) indicates that minimum levels of literacy are no longer sufficient for people who must live and work in an increasingly complex and technological society, ("Learning to be Literate in America: Reading, Writing and Reasoning," National Assistant of Educational Professor, Educational Testing Service, March, 1987)

The New York State Education Department has undertaken several initiatives to address the literacy problem, not just for dislocated workers but for all adults in New York State. In 1984 the State Legislature established the Employment Preparation Education State Aid Program for adults age 21 or over and the Equivalent Attendance State Aid Program for persons age 16-20 to enroll in basic education, English-as-a-second-language and high school equivalency programs. Enrollments in adult literacy programs have almost doubled in the last three years from 85,000 to approximately 150,000 adults and out-of-school youth.

Title IV of the Education for a Competitive American Act (S 406) includes $50 million in additional funding for adult education and literacy under the Adult Education Act. New York State agrees that additional funding should be made available for literacy programs. However, the Adult Education Act should be amended to target additional funds on two special populations needing literacy education, those who are employed and lack basic skills needed to deal with new technologies and those who are on welfare who lack the basic skills to obtain employment in an information and service economy.

In the manufacturing sector, where industries may want to use more advanced technology to increase productivity, lack of basic skills is a problem in terms of upgrading employee skills to deal with technological advances. It is difficult to train someone in statistical process control when they cannot perform basic math functions or are reading at a third grade level.

Motorola in Arcade, New York is one plant in the international corporation. The plant line included thick film ignition systems and alternator products. Due to the changes in the industry it was projected that up to 400 of the 1200 employees could lose their jobs as the thick film products changed to computer products. One way that these workers could save their jobs would to be able to adapt to new methods in the plant which required the use of "statistical process control." In assessing the skills of the workers it was determined that a "pre-stage" program for math development was necessary. The curriculum for that program was basic mathematical skill review including: decimals, reounding of numbers, fractions, changing fractions to decimals, powers, and introduction to metrics.

The net result of this effort was the following: not only were the 400 individuals able to retain their jobs at Motorola, Arcade, but, the company increased employment at the factory with changes in product. A numbe of employees were identified as not having a high school diploma and an in plant program for GED was introduced in the employee cafeteria. Plans for expansion of that program are in development with Motorola, Arcade.

Another example of how workplace literacy can be combined with specific skills training to increase the productivity of our workforce is training we have provided for General Motors (GM) plants. General Motor's plants nationwide are automating as quickly as resources allow. The effects of this automation are a reduction in the number of manufacturing personnel and a need to upgrade the communication and computational skills of those who remain. The company and the United Auto Workers Union have entered an agreement whereby workers scheduled to be laid off are given educational and counseling assistance and those selected to remain are provided the education required to allow them to function in the new automated environment.

Rochester Products division of General Motors identified 1500 persons of their 6000 employees in Rochester who did not have a high school diploma or spoke English as a second language. The company and the union cooperatively had identified a serious gap in the employees mathematics and reading skill level. Production workers have been able to take advantage of a program that puts them into school full time to receive their high school diploma. We call the program "Rochester Products High" as a cooperative effort of the company, the union, and the local education agencies. Two hundred full time students/workers are in the program at any one time to help them upgrade their skills.

The company agreed to allow its employees who needed basic skills instruction to attend classes for up to twenty-four weeks, full-time and at full-pay, to earn a high school diploma or a high school equivalency diploma or at the very least to upgrade basic skills. The basic skills program draws on the resources of existing education agencies. The lead agency is the Rochester City School District, assisted by Greece School District. Rochester School District operates an evening high school and can therefore award units of credit to those employees who earned sufficient credits in their earlier high school days to make high school completion a practical objective. State Education Department funding under Employment Preparation Education pays for the actual instruction. After employees have achieved competence in basic skills, employer-specific skills training funds are used to offer training needed to upgrade employee skills in the area of advanced manufacturing systems. This training is provided by Monroe Community College. This program is a unique model for combining workplace literacy with upgrading employee skills in more advanced technical areas.

Addressing the Needs of Those on Welfare

One group of adults on which the State has placed particular emphasis for basic skills training is public assistance recipients. A major initiative was undertaken with the State Welfare Education Program (WEP) funds for public assistance recipients in New York City. The New York State Education Department, the New York State Department of Social Services, and the New York City Board of Education are cooperating in a new pilot program called "Project Prepare." Project Prepare provides intensive job counseling, training and educational services to

New York City residents who are recipients of aid to Families with Dependent Children (AFDC) who lack the necessary educational skills to participate in the labor market.

An important feature of Project Prepare is coordination of the services provided by educational agencies with the services of other State and local agencies so that a continuum of service is provided and client progress is monitored throughout the program. The New York City Human Resources Administration (HRA) provides clients with supportive service such as child care and transportation as well as referral through HRA's Employment Opportunities (EO) Offices. As clients complete their educational, work experience or occupational training components, they will be referred for job placement.

Linkages with the social services system to provide better case management for welfare recipients who have received basic skills instruction or need vocational training are being implemented in various areas of the State. A request for proposals was issued under the Vocational Education Act which combines $200,000 from the Department of Social Services with $200,000 under the VEA for projects to provide a comprehensive set of services to Aid to Families with Dependent Children (AFDC) recipients. It builds on the basic skills programs operated under the Welfare Education Program.

In addition to the Employment Preparation Education, Equivalent Attendance and Welfare Education Programs, New York State is sponsoring a public awareness campaign entitled "New York, You Can Read." Through public service announcements and a toll free telephone number people who have a need for literacy instruction are put in contact with agencies in their regions which offer such programs. The increase in the number of people being served in literacy programs will result in a concomitant increase in the number of people needing occupational training.

As demonstrated in the New York's efforts to base employment training on a firm foundation of basic skills through the Employment Preparation Education and the particular attention on the basic skill needs of those on welfare, the State has reflected the critical need for Title IV of the Senate bill (S 406). The expanded capacity which the State would have through the proposed Act would greatly expand provision of literacy training well beyond the existing support now available. The existing capacity already exists to provide literacy training, particularly in conjunction with vocational education for employment. It is estimated that the number of disadvantaged and undereducated out-of-school youth and adults completing adult basic education, English as a second language, and high school equivalency programs in New York State is expected to reach nearly 200,000 by 1987. This reflects a major demand for literacy skills training, and related vocational training.

The Employment Preparation Education program has created a similar network and linkages among agencies in the same way as the dislocated worker retraining programs. Additional support through S 406 would help extend the existing outreach, assessment and instructional programs which education institution already provide. By linking basic skills training to vocational training, the base and specialized training will draw various agencies together toward common purposes. In addition to the agencies mentioned previously, the Department of Social Services and local social service agencies will contribute their special knowledge and support services to the already extensive network of agencies contributing to the improvement of worker skills.

Use of Technology in the Workplace

Title V of the proposed Education for Competitive America Act authorizes funds for the transfer of training technology to private sector, State and local governments and educational institutions. There is a critical need to help business and industry upgrade the skills of its workers to deal with new technologies. Part of the growth in occupations that require training can be attributed to the impact that technology is having on the world of work. Introduction of technology into the workplace is changing the nature of jobs and the relationship among jobs. Existing occupations are being altered as workers begin to use sophisticated devices such as computers to do their jobs. The structure and organization of work is also changing, partially as a result of the use of technology, with a less hierarchical system of management and more reliance on teamwork. ("The Next American Frontier," by Robert Reich, October, 1985.) These changes require a different set of skills, with the need for flexibility and for transferable skills which can be adapted to new jobs or to new ways of doing old ones.

The introduction of technology into the workplace is changing the nature of jobs and the relationship between jobs. Although the computer revolution is moving more slowly than some previously anticipated, it is still having an impact on all industries to some extent. Use of technology is having an impact on workers at all levels - on the factory floor, in the back office operations of service companies, and in the ranks of management staff. ("A Special Report: Technology in the Workplace," the Wall Street Journal, September 16, 1985.)

The full impact of the so-called technological revolution is yet to occur, but it is likely to substantially change both what we do and how we do it. Computers are becoming more common in the workplace, from the personal computer and word processers, to robotics and computer-assisted design/computer assisted manufacturing. High technology industries are responsible for many of the fastest growing jobs such as computer analyst, computer programmer, and data processing machine mechanic.

However, it is predicted that these industries will generate only 6 percent of all new jobs through 1995. However, many of these new jobs will be technology dependent, that is technology will be involved in some way, whether through an electronic cash register and computerized inventory control, or through sophisticated computerized diagnostic screening, such as the CAT scan.

Workers of today and in the future must have new types of skills to function effectively in the changing economy influenced by technology. They can be expected to change careers several times during their working life, and so they must be adaptable. They must be able to understand and use technology in the workplace and to adapt through continual retraining to rapid changes it creates. They must be prepared for work tasks that are less standardized than they were in a manufacturing economy. The routine tasks of the assemblyline will be performed by industrial robots. More than specific job skills, workers will need good reading, speaking, writing and problem-solving skills as well as computational ability and technological literacy. The educational system has the resources to help busness and industry upgrade the skills of the workforce.

Knowledge And Technology Transfer

As a matter of national policy, we place a large amount of research and development (R & D) money into the Department of Defense. The Department of Defense spends about $44 million just on education and training R & D. This is about 50 percent more than the U.S. Department of Education spends on its research laboratory and center programs. The civilian sector receives a "trickle down" benefit from the Department of Defense R & D.

There are some good examples of benefits to the education and training sectors derived from Department of Defense R & D investments. But there is much more that can be done. Within the Department of Defense, the defense training mission of readiness for operational assignments takes priority over extended study and planning for transfer of its training technologies to other sectors.

It is assumed the Federal policy of directing R & D dollars into the military for its ever-changing training requirements cannot be changed. Similarly, it is unlikely that a Federal policy of increasing the R & D budget for educational and training technology in the civilian sector will be changed easily or in the short run. Therefore, it is necessary to develop a strategy to access Department of Defense education and training R & D in a systematic way so that the results can more quickly be available to the school and college systems. A development effort is necessary to translate and adapt these processes or products for the school and college systems.

The Stevenson-Wydler Technology Innovation Act of 1980 recognizes the importance of technology transfer by encouraging the exchange of scientific and technical personnel among government, industrial, and academic institutions and stimulating use of federally initiated technology developments by state and local governments and the private sector. Recent reforms in patent law and policy have also strengthened transfer possibilities. Private sponsorship for proprietary product development, public-private research partnerships, and the government's ability to waive patent ownership rights (through the Bayh-Dole Act of 1980) have all increased incentives for both public and private sources to develop needed products. Technology transfer should be further strengthened with enactment of the Federal Technology Transfer Act of 1986 which more formally promotes military-university transfer programs.

However, these existing Acts are oriented towards the hard sciences and do not explicitly address the need for the transfer of the education and training technologies most necessary to promote a quality education system.

Consequently, there are two issues to be addressed. First, the Federal government must seriously consider the similarities of needs and the sharing of education and training techniques and technologies and curricula by defense-related and private sector industries. The use of education agencies and institutions as cooperative links must be addressed.

Second, a more systematic transfer of instructional knowledge, a "technology transfer," from the military to the education sector, is needed. As a result of the technological explosion of the past few years, two related issues are challenging educators across the country:

1. Schools are spending millions of dollars on computers but compatible software packages are not readily available or cannot be developed and shared without substantial recoding and duplication of effort.

2. Computer-based instruction programs have too often been implemented without careful analysis of the educational needs of the students or the costs of acquiring and maintaining the hardware and software needed for such programs.

Similar issues have been addressed by the Department of Defense, and its efforts can be of immediate assistance to the education system of this country.

The concept of education and training technology transfer between the military and education sectors is not a new one. During World War II, such education and training techniques as the overhead projector, simulation exercises, and foreign language lab training programs were perfected by the military and subsequently adopted by education institutions. Present-day technological developments such as microcomputers and interactive video discs have also found their way from defense to industry and to education. In fact, the American consumer has directly benefited from military research. It is estimated that more than 20 percent of the food on supermarket shelves involves technology originally developed by the military.

The Department of the Army has developed a computer-based program to teach functionally oriented basic intellectual skills related to specific military occupations. A cross-walk between military occupations and civilian occupations is available. In addition a low-cost, hand-held computerized tutor to teach job-related vocabulary and knowledge is in the second phase of development by the Army Research Institute for Behavioral and Social Sciences. The Defense Language Institute has developed English as a second language programs. The Air Force is currently developing keyword, speaker, and language recognition technologies with potential relevance for education applications. The Navy has developed the Language Skills Computer Assisted Instruction (LaSCAI) program, an instructional tool to improve vocabulary, reading, and comprehension skills. These and other projects have the potential to be adapted for effective use in our education system.

The interchange between the Department of Defense and the education community though has been minimal but has gained some recent momentum. With the proficiency of the Department of Defense in such areas as the instruction of basic remedial skills and development of educational technology, the need to secure closer connection with educational institutions is apparent. The "trickle down" of technology must be replaced by a well-planned program of direct transfer.

The education and training technology transfer concept, extended to include formal liaisons between Federal agencies and education institutions, could result in mutual benefits to both. An investigation of current and potential situations for sharing education and training technologies and projecting human resource needs could serve the human resource and economic needs of our Nation.

Title V of the proposed Education for Competitive America Act (S 406) provides an important resource for the many institutions, both public and private, that are responsible for worker training. However, we believe that the proposed language of the bill needs to be rewritten to make technology transfer to educational agencies and institutions a Department of Education responsibility. A clearinghouse could be set up to function as part of the Educational Resource Information Center (ERIC), maintaining a single data base for education administrators.

Through the transfer of training technologies from various Federal agencies, the training capacities of the many training providers could be strengthened, and in turn the capacity of industrial workers improved. While the ultimate benefit would be for the workers who will have the opportunity to receive better training and instruction with greater diversity, the provider agencies would also be substantially assisted.

At present, most provider agencies must secure or develop their own training technologies. Those technologies which are in the public domain are limited and all agencies must either spend financial resources to secure materials, or invest time and money in developing them for their specific needs. The cost of these resources can be substantial, particularly to those agencies and business firms which operate at a small scale. By transferring such technologies, far greater efficiencies are achieved in the use of instructional resources of time and money.

In closing, I'd like to thank you for the opportunity to present testimony on this important legislation. The proposed Education and Competiveness bill addresses some of the most critical issues facing our nation - expansion of efforts to address the needs of dislocated workers, increasing support for worker literacy programs, and establishment of mechanisms for the transfer of training technology. It is rewarding to know the high priority congress has given to education in terms of increasing our nation's competitiveness.

TESTIMONY TO
THE SENATE SUBCOMMITTEE ON EDUCATION, ARTS, AND HUMANITIES
ON
A BILL
TO ESTABLISH AND EXPAND FEDERAL FOREIGN LANGUAGE AND INTERNATIONAL EDUCATION PROGRAMS DESIGNED TO STRENGTHEN THE COMPETITIVENESS OF AMERICAN INDUSTRY, AND FOR OTHER PURPOSES

Statement of Support

The College of Business Administration of the University of Hawaii at Manoa strongly supports the intent of the bill for international education to strengthen American competitiveness in world trade that is now under consideration by the Senate Subcommittee on Education, Arts and Humanities. We agree that the productivity and success of American business now depends upon maintaining a competitive edge in the international marketplace. The burgeoning trade deficit is ample evidence of our failure to develop the necessary international skills. In order to improve international expertise in American business, we also agree that it is essential to increase substantially the quantity and quality of international studies and foreign language instruction in the nation's educational institutions, particularly in its schools of business administration.

In particular, we strongly favor the establishment of centers for international business education, which will be national resources for (1) improving instruction in international business; (2) research and training in the international aspects of trade; and (3) serving as regional resources to businesses. We especially support the following proposed components of the centers:

(1) the emphasis on interdisciplinary collaboration
(2) the complementarity of research, training, overseas exchanges and internships;
(3) the range and types of audience to be served - students (our future managers), faculty, and members of the business community;
(4) the practical partnerships between academia and business, such as that provided by the Center Advisory Council (part d2).

We feel that these emphases will be crucial to the success of the centers.

Need for Establishing International Business Education Centers

In the past, American business schools have concentrated on teaching U. S. ways of doing business. Numerous foreign students have learned to compete with U. S. firms by studying in American business schools and by using U. S. textbooks in their own countries. On the other hand, American business students have not studied foreign ways of doing business until recently.

This has been caused by the lack of qualified faculty, the dearth of international courses and teaching materials, and little interest by students (due to the absence of entry-level positions in international business in U. S. firms). A recent survey of U. S. business faculty showed 90 percent have no interest in internationalizing themselves. As of 1985, fewer than 1 percent of new Ph.D.'s in business specialized in international topics, and the percentage of undergraduates with international business majors was less than 3 percent nationwide. This situation exists today despite the 1974 ruling by the AACSB (the accrediting body of U.S. business schools) mandating internationalization of business degree programs.

The experience of the past ten years shows there is no short-term solution to the problem of how to internationalize American business schools and improve the international competitiveness of U.S. companies. A much higher level of support for and commitment to international education is absolutely necessary. Therefore, we strongly support this bill. Though long overdue, it is "better late than never."

Importance of Asia-Pacific Trade

Implicit in this bill is the most severe challenge facing American business today: our growing trade deficit with Asia. Japan and the Asian "Nic's" —the newly industrializing countries of Hong Kong, Korea, Taiwan, and Singapore-had a trade surplus with the U. S. of over 86 billion dollars in 1986. As a senior official of MITI (the Japanese Ministry of International Trade and Industry) observed recently: "The Asian and Pacific Region, due to its highest potential for economic growth in the future, is expected to play a central role in economic development, pulling the world economy towards the 21st century." Some scholars estimate that trade with Asia will account for 65-70 percent of world trade before the end of this century.

In addition to factors such as the opening of Japanese markets, "The solution to U.S. trade problems is related to how well we do in the Asian developing countries...A more outward-looking approach by the U.S. government and business is essential for healthy economic growth in the future," according to Dr. Seiji Naya, director of the East West Center's Resource Systems Institute and former chief economist of the Asian Development Bank.

Proposal for Regional Centers of International Business Education

It is impossible for any one international business education center to provide the depth required in all international areas. Therefore we would like to propose that funds be earmarked to support national centers of international business education that will focus on specific world regions.

The purpose of these centers would be to develop expertise on a specific area of the world, or a set of countries, as the University of Hawaii has done by concentrating on the Asia-Pacific region. This will focus energies and allow development of in-depth knowledge rather than simply scratching the surface trying to cover the world. These centers could then disseminate their knowledge ~~through~~ and skills in curriculum, training, research and publications to other centers in their region and to universities throughout the nation.

Example: University of Hawaii's College of Business Administration

The University of Hawaii's College of Business Administration has followed this model for ten years in developing its international focus on Asia and the Pacific. It has delivered international business training and technical assistance for over 1000 companies and 300 educational institutions in over 30 countres since 1953 throughout the Pacific. Eighty percent of our faculty are involved in international teaching and research; over 125 international books and articles have been published since 1980, and over 30 international courses have been introduced (both credit and non-credit), most centered on Asia.

This program has been assisted by the closely aligned strategic objectives of the State and University of Hawaii. Recognizing the potential inherent in Hawaii's mid-Pacific location for bridging the U.S. mainland and Asia and supported by the Asian orientation of its multi-ethnic population, both the state government and the University of Hawaii have set goals for the development of international activities at the University.

The Final Report of the Governor's Committee on Hawaii's Economic Future, released in January 1985, stresses the important role the University plays in the State's international development and its economic future:

> ...the University of Hawaii [is] a rich, cross-cultural resource filled with experts on Asian and American affairs. An example of current efforts to utilize these talents is the Pacific Asian Management Institute (PAMI) at the University of Hawaii's College of Business Administration...Institutes like PAMI and the East-West Center are truly vehicles through which the University and the State of Hawaii can develop a knowledge-export industry in international business and research.

Newly elected Governor John Waihee has further emphasized the need to play a leadership role in the new Pacific century. In his 1987 State of the State address, he said, "The Pacific century is already here...Too long we have been...in the middle. Now it is time to seize upon new opportunitites and move to the forefront."

In the University of Hawaii's Strategic Plan for 1985-95, one of the five dimensions emphasized is the establishment of an international - especially Pacific-Asian - focus. This dimension is divided into two strategic objectives: (1) to serve as a bridge between the cultures of East and West and to become a leader in international and cross-cultural education; and (2) to become the research, training, and cultural center of the Pacific Basin.

University of Hawaii at Manoa, a state institution established in 1907, is premier among U.S. universities in its pioneering focus on excellence in Asian and Pacific studies. Four hundred of the faculty members are specialists on Asia and the Pacific; over 500 courses on Asia and the Pacific are offered throughout the university. The university libraries house extensive collections on Asia and the Pacific which are ranked among the top ten in the U.S. The University specializes in Asian and Indo-Pacific languages; more students are enrolled in Japanese language courses here than anywhere else in the U. S.

Aided by these resources and strategic goals, the College of Business Administration has moved assertively within the past ten years to establish a comprehensive set of programs in international education, training, research and technical assistance directed toward Asia-Pacific business. The following complementary centers have been the vehicles for delivery:

- Pacific Asian Management Institute, established in 1977 to serve as institute of international management education and reseaarch with Pacific-Asian focus; the umbrella for all international programs in the College of Business Administration.
- Center for Executive Development, established in 1953 to provide management and professional programs for the business community.
- Pacific Business Center, established in 1984 to provide technical assistance to small businesses in Hawaii and The American Flag Pacific Islands, including aid in exporting to Asia.
- Trade Adjustment Assistance Center, which provides technical assistance to Hawaii businesses suffering from import competition.
- Pacific Research Institute for Information Systems and Management, established in 1986 to serve as a research center for communications technology and management of information systems in the Pacific Basin.

Through these centers and its academic departments, the College of Business Administration (CBA) has offered international programs and activities in all the areas enumerated under part (C) of the section of the bill describing the purpose of Centers for International Education:

(1) (A) Interdisciplinary programs which incorporate foreign language and international studies training:

(1) The Summer PAMI Program~~s~~ for students in business, the social sciences and related fields awards certificates to students combining foreign language and international business study.
(2) In line with a new foreign language requirement for the university, the College of Business is working with the College of Languages, Linguistics, and Literature to develop second year business-oriented foreign language courses.
(3) An International Business major is offered at the undergraduate level;
(4) The course content of all MBA courses is at least 30 percent international.
(5) A new Ph.D. in International Management with a Pacific-Asian Focus (to start in 1988) requires an interdisciplinary program of study, including foreign language and a Pacific-Asian area focus outside the College of Business.

(B) Interdisciplinary programs which provide business training for foreign language and international studies faculty and advanced degree candidates:

(1) PAMI annually offers the Visiting Colleagues Program, which is a faculty development program to assist professors in business and the social sciences to develop international courses.
(2) The Summer PAMI Program encourages applications from graduate students in international relations, Asian studies and related fields to study international business.
(3) The new Ph.D. in International Management requires applicants to have a background in foreign language and Asian studies, business courses and a Pacific-Asian area focus outside of the College of Business Administration.

(C) Evening summer programs for members of the business community:

(1) The Pacific Asian Management Institute's International Executive Programs, held in conjunction with the Center for Executive Development, have provided Asia-focused training in international banking and finance, multinational business management, and international marketing to 500 mid-level managers from 170 companies.
(2) The Center for Executive Development has provided international training for nearly 2,000 senior executives from over 500 firms through the Advanced Management Program.

(D) Collaborative Programs to Develop International Awareness
The CBA, through its delivery centers, has collaborated with the Hawaii Pacific District Export Council, the State DPED, the U.S. Department of Commerce District office, the Hawaii Chamber of Commerce, small business, and the leading corporations in the state, to provide outreach programs and to enrich its degree programs. Some examples are:

(1) PAMI's Pacific Asian Lecture Series, which features international executives and scholars;

(2) PAMI's Colloquium on Selected Issues in International business, which serves as a forum for presentation of current researfch on international business in Asia;

(3) Joint research projects by CBA faculty, Hawaii business, and faculty in Aisan universities.

(4) On the part of the business community, hosting visits for CBA students in international firms, donating scholarship support to CBA students to attend overseas programs, such as PAMI's Field Study Abroad of Asian Industrialization and a semester in Japan at the Institute of International Studies and Training. and providing speakers for classes and lecture series.

(E) Research designed to strengthen and improve the international aspects of business education:

and

(F) Research designed to promote the competitiveness of American business and firms

(1) CBA faculty have been awarded over $100,000 under the U.S. Department of Education's Business and International Education Program to conduct research on Asian business to meet the needs of Hawaii firms and develop Asia-oriented curriculum.

(2) The CBA actively encourages faculty to conduct such research by providing support for projects on Asia businesses. This in turn is incorporated into the curriculum.

(3) PAMI seeks research support for CBA faculty in international business areas.

(4) PRIISM seeks research support for CBA faculty in technology with an emphasis on Asia-Pacific.

(2) (A) Overseas internships for students and faculty

(1) CBA faculty are encouraged to spend their sabbatical at Asian universities; recently, for example, our professors have taught and done research at the University of Hong Kong, the National University of Singapore, the University of international business and Economics in Beijing, and the Institute of International Training and Studies in Japan. In addition, our faculty makes frequent shorter visits to Asia for research and consulting, thereby maintaining contact with universities and companies throughout the regions.

(2) Annually, several of our MBA students spend a semester in Japan at the Institute of International Studies and Training.

(3) The field study abroad of Asian industrialization since 1984 has taken students, faculty inside Asian factories and boardrooms, will serve as a basis for developing internships in Asian companies for our students.

Conclusion

The University of Hawaii's long and successful history of international business and foreign languages education, including interdisciplinary collaboration has enabled us to train our students to do business in Asia and the Pacific. Given this example, and the urgency of the trade problem, we strongly endorse the proposed legislation which is sorely needed to increase the competitiveness of U. S. business.

Council of Chief State School Officers

STATEMENT REGARDING EDUCATION'S ROLE IN ENHANCING OUR NATION'S COMPETITIVENESS

Before

The House Education & Labor Committee

THE COUNCIL STATEMENT PRESENTED BY

David W. Hornbeck
President, CCSSO
and
Superintendent of Schools
State of Maryland

February 10, 1987

Education
...a sound
investment in
AMERICA

Mr. Chairman, I am David Hornbeck, Superintendent of Schools for the State of Maryland. I am honored to have this opportunity to testify on behalf of the Council of Chief State School Officers regarding education's role in enhancing our Nation's competitiveness.

The Council is a professional organization composed of the commissioners and superintendents of education from each of the fifty states, six extra-territorial jurisdictions, and the District of Columbia. Members of the Council are the principal administrators of the public school systems in each state. As such, we are responsible, as are our colleagues at the local level, for implementing federal and state education policies and programs for the Nation's school children.

I would like to commend you, Mr. Chairman, and the Committee for examining the role of education and training in enhancing our competitiveness in international markets. "Competitiveness" seems to be this year's response to our current economic crisis — the trade deficit. However, the underlying issues have been with us since the days when we were talking about productivity to combat economic stagflation or a recession. And it will be with us, in one form or another, into the last decade of the century, or longer, depending on how we address it.

The report of the Carnegie Forum on Education and the Economy argued persuasively that the American workforce cannot and will not work cheaply enough to compete in the world marketplace. If we wish to maintain or improve our current standard of living, we must work smarter. Moreover, it is clear that we will not succeed if only a small group of gifted elite work smarter.

The ability, the skill, the capacity to work smarter must - for the first time in human history - be characteristic of the mass of our population. That includes the 22% of our children living in poverty. It includes the 40 teenage girls a day who give birth to their third child. It includes the 60% of all children born in 1983 who will live in a single parent home before age 18, of whom most will be in a female-headed household with incomes under $10,000. It includes the over 61% of high school seniors who have used drugs. And it certainly includes the majority of students in some urban areas who drop out before their senior year of high school.

Add to these challenges two additional facts to put the economic imperative into perspective. Thirty-five years ago, there were 17 people working for each retiree. By 1992, there will be only three. Clearly all three must be productive. Yet one of those three will be a minority. Those who are minorities are disproportionally represented among the poor. Moreover, they are disproportionally repesented among those with whom schools have been and continue to be least successful.

We cannot forget, however, that our tradition of free public education has been at the heart of our Nation's success. Over a hundred years ago, we were the first Nation to make a commitment to free mass education. In the past thirty years, we have reaped the gains of a commitment to access and equity in education. The high school graduation rate has increased from less than 50% in the 50's to over 75% today. Over 50% of high school graduates pursue postsecondary education. Governmental support for racially segregated schools has been dismantled, and formal barriers to educational equality for women removed. It is the Nation's policy to provide full educational services to disabled children, as well as to recognize the extra educational needs of limited English proficient children. This Committee can be proud of its contributions to these successes.

Will a new national commitment to education truly make a significant difference in the workforce that must become more competitive? We have strong evidence that it will. First, education has always correlated to the work ethic. 63% of college graduates show a strong work ethic, compared to 47% of workers with high school or less. Education also makes a difference in the health and longevity of the individual. Every year of schooling completed means an average 2.73 years increase in life expectancy for women and a 2.48 years increase for men. And the difference in lifetime earnings between a high school dropout and the average American who completes college and participates in some form of adult education is $631,000.

Nonetheless, we have reaped almost all of the economic benefit we can expect from the dramatic increase in the number of years of schooling completed by Americans. Making substantial economic gains in the future -- meeting the challenge to work smarter than our competitors abroad -- will depend on enhancing the quality of education. We must act thoughtfully, decisively, and quickly, for the economic imperative is here; the human and social tragedy of families and communities living in generational and perpetual poverty is with us. We have, in my judgement, less than a decade to alter our course sufficiently to avoid serious negative consequences to our life together.

I do not suggest that chief state school officers or schools alone can meet these challenges, no more than I would suggest that this Committee, or Congress, or business could do so. But competitiveness cannot be achieved unless schools are at the center of solution strategies. Schools must join all levels of government, business, and other private agencies in resolute commitments to the young people whom our society has too often ignored. We hear much comparison of our Nation's school system with that of Japan. A primary reason for the difference might be summed up as commitment. The Japanese regard their children as a national treasure; both the commitment of government and that of parents in Japan reflect that perspective.

We would all like to believe that human decency and concern would serve as sufficient motivation to mobilize the imagination, the will, and the resources necessary to invest in our national treasure -- our children. But wherever those qualities are absent, there are the economic imperatives as well. There is also the reality of fiscal imperatives shaping how we make our investment.

If there were times of plentiful resources, perhaps you in the Congress and we in the states might feel we have the latitude to design programs in isolation -- a program for this, and a program to do that. But these are clearly not such times. These are times when each public dollar must accomplish more dollars worth of change. And we know that dollars alone do not reach the goals we seek. The difference is made by dollars together with how the programs are crafted, how they are linked, and especially, the incentives they create for change and reform in the people and institutions that run the programs.

The first recommendation I would like to make today -- and perhaps the most important -- is that as this Committee develops its competitiveness package, you look to the foundation of programs and investments we have already made in educational access, as well as quality. The Council supports the comprehensive approach you are taking to reauthorization of the major elementary and secondary programs. We hope you would take an equally comprehensive approach to the educational components of omnibus trade legislation with careful attention to how they relate to existing programs. I would like to read for the record CCSSO's positions on competitiveness:

"The Council urges the 100th Congress to address national policy issues such as economic development and the needs of at risk populations in a thorough, comprehensive approach that defines the appropriate federal role, identifies the gaps and overlaps in existing programs, and structures new and expanded efforts to address the issues in a coordinated, effective fashion.

The Council recommends that such comprehensive approaches be fashioned in a way that clearly identifies the national goals and priorities in education and training, allows states and local education agencies adequate flexibility to address these priorities as they are reflected at the state and local level, and provides a means of evaluating and demonstrating the effectiveness of programs, particularly the potential gains of greater investment in the programs."

You are acting on our third recommendation -- that chief state school officers be included in the dialogue and the development of responses to national policy issues such as these. I thank you and hope that this dialogue with us will continue throughout the legislative process.

The chief state school officers address that part of the federal structure which affects education. As we looked at the national priorities and the components of competitiveness, we identified Chapter I as the foundation of the federal investment in the educational needs of at risk children and youth. We believe that full funding of service to all eligible children, with the scope and intensity necessary to raise their skills to the level of their more advantaged peers, would be the best first step toward national competitiveness.

In addition, the Council's recommendations for Chapter 1 would build on the existing structure of the program, emphasizing its strengths, and using its full potential to merge what we know about quality education with access and equity for poor children. These recommendations include:

-- The need to clarify definitions, such as "educationally deprived students", as well as to fund additional grants for schools with the highest concentrations of poverty, so that those children in greatest jeopardy can be better targeted.

-- Expansion of opportunities for local education agencies to apply for school-wide projects, so that the poorest children can enjoy the benefits of effective school practices.

-- Enhancement of outreach and involvement for parents of all children eligible for Chapter 1, including use of Even Start and Follow Through type models in school-wide projects and schools receiving concentration grants.

-- Adequate resources for state education agencies to administer the program as it was intended, with evaluation and dissemination of model programs, as well as a new authorization for states to provide local education agencies with technical assistance, training, bonuses for exemplary performance, and the results of research on best serving the target population.

-- Finally, full funding of state incentive grants to encourage states to share in the responsibiilty for compensatory education.

Although we have not had ample opportunity to examine your recently introduced Chapter I proposal, it is evident, Mr. Chairman, that you share our concern with building on the potential of Chapter 1 to serve children at the preschool level, in the middle grades and high school whose needs are currently unmet. We also appreciate your and Mr. Goodling's commitment to the value of programs like Even Start to break the intergenerational cycle of illiteracy through work wtih children and their parents. We wish to continue to work with you on legislation for an equitable state and local partnership to promote effective schools.

The Council also examined Chapter 2 and determined that it should be the foundation of a significant federal investment in the quality of education. It serves as a flexible source of funds which states, local education agencies, and schools can use to respond to changing needs and new demands in education. If, as a Nation, we are going to be competitive, we need a federal investment in the quality of education, as well as access, through programs such as Chapter 2 and the Education for Economic Security Act.

Knowing that Congress questions whether the current structure of Chapter 2 permits us to know it is meeting national priorities, we defined four national priorities which seemed to be the cornerstones of competitive schools. States and local school systems could choose to spend their funds on 1) at risk students and special populations, 2) effective school models and reform efforts, 3) instructional program improvement of the curricula, and/or 4) training or retraining educational personnel, including teachers, administrators, counselors. Within each category, a wide range of subcategories could be chosen, ranging from dropouts to gifted and talented students under the first category, to just about any subject area for instructional program improvement or teacher training.

The key difference in our proposal from current law is the inclusion of an accountability mechanism. In their plans, states with their 20%, and locals with their 80%, would provide a rationale or justification for their decisions on where to target funds, based on their needs. Provisions for establishing overall goals and evaluating the results are also included. To insure the state share is targeted to the needs of schools and children, we have clearly defined the difference between administrative costs and other activities, such as technical assistance and training.

The Council believes that these recommendations would insure that the flexibility of Chapter 2 to supplement and augment other programs is maintained. The funds could be used to fill critical gaps. At the same time, states, local educators, and Congress would have some benchmarks through which to measure progress. We believe state and local education agencies are quite prepared to be held accountable for outcomes with all federal dollars, including Chapter 1 and 2.

With regard to the competitiveness legislation, the Council approves of the approach taken by Senator Pell and others in S. 406, which provides critical injections of new funds to existing programs like the Education for Economic Security Act. We have supported full funding of the existing math-science-foreign language program and continuation of programs such as the Leadership in Educational Administration Development (LEAD) that address the key elements of educational reform.

We are also interested in the role of research and the database in assessing the competitiveness of our education system. Indicators that are useful in gauging the Nation's economic and social strength, such as data from the Bureaus of the Census and Labor Statistics, are lacking in the education arena. CCSSO has taken the lead in assessing the quality and supply of mathematics and science teachers, developing indicators of student achievement, and designing a model definition of dropout with crosswalks for comparison state by state. The database needs are more complex than a simple "wall chart" comparing student scores by state. We would like to work with you on legislation to insure a strong, independent, responsible means of compiling the data and indicators needed to evaluate public education on a long term basis.

I am proud to have been selected as this year's president of the Council of Chief State Officers. Our theme and subject for study last year was Education and the Economy, and I submit CCSSO's position paper and recommendations for your Committee's consideration of the issue of competitiveness. Our focus this year is on meeting the needs of at risk children and youth, and I am excited about our efforts to devise a standard definition and model legislation in this area for the states. Again, I appreciate the opportunity to testify today and look forward to assisting the Committee in any way I can in the future.

UNITED STATES HOUSE OF REPRESENTATIVES

COMMITTEE ON EDUCATION AND LABOR

Education for American Competitiveness

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Forrest L. Morris

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INTRODUCTION

I am Forrest L. Morris, Executive Director of Mississippi Authority for Educational Television. We operate statewide networks in educational television, public radio, Radio Reading Service and have a statewide, backbone, microwave telecommunications system. I have in excess of 25 years experience in the educational-telecommunications field. I have served on the Board of the Public Broadcasting Service (PBS), was Chairman of Board for Southern Educational Communications Association (SECA), and have served in other capacities in the educational and telecommunications field. I am presently serving on the Board of Trustees for the National Association of Public Television Stations (NAPTS).

COMMENTS

I appreciate very much the opportunity of meeting with the Committee and to have input into HR 90. My colleagues and I would like to compliment Congressman Hawkins for introducing HR 90, "Education For American Competitiveness". I have several comments which I would like to offer, primarily in the field of learning technology.

An educated, well-informed citizenry is one of the most valuable assets any country can have. It is the best long term, defensive weapon. Education is more important than any single weapon or defensive strategy. Adequately meeting education, defense and other urgent needs is not possible without a strong, competitive, national economy. Education, economic growth, technology, and a foreign competitive economic position are intertwined and interdependent. If education declines, technology declines, economic growth slows or stops, our economic competitive position deteriorates. To correct the declining, competitive, economic situation in which the USA now finds itself, many things need doing with nothing more important or urgent than educational improvement and availability. It is felt that education is the place to start and should be top priority. Progressive, cost-effective, easily distributable learning technology is the indispensable ingredient in providing education the key if Americans are to again become competitive in the world economy! Learning technology needs to be financed as a major partner to most effectively do the job and rapidly progress toward the goal.

PUBLIC BROADCASTING/LEARNING TECHNOLOGIES

Public broadcasting and learning technologies are vital cost-effective assets in meeting the myriad of educational goals of our nation.

Public broadcasting, or educational television as it is sometimes called, is more than just over the air evening programs and children's programming. Educational television serves the full curriculum in classroom instruction, and encompasses college credit, adult learning, and much more. Technologies-telecommunications are cost-effective means of delivering specific educational material to the schools and to home learning situations. For your review, I have enclosed a paper on Public Broadcasting Educational Services, and a paper from the National Association of Public Televison Stations' Office of New Technology Initiatives which discusses case setups for new technologies. ITV FUTURES - A group of public television and educational-instructional television professionals spent two years researching education by learning technologies. They prepared a comprehensive report which is available should the Committee desire. The Southern Educational Communications Association (SECA) annually distributes nationally via satellite 86 series and 1200 hours of instructional television programs. The Kentucky Educational Television Network has funded, and is planning a 2nd statewide educational channel via satellite, where every library, high school, and college will have a satellite-receiver station. The South Carolina Educational Television Network distributes four channels of instruction by Instructional Television Fixed Service (ITFS).

Many exciting and innovative things across the country are happening in education via learning technologies. However, funding is far too little to meet the national need and adequately provide the effective, competitive economic position the entire country must have. Most importantly, many deprived areas do not have available to them, or are not able to take advantage of these resources--to this group the pockets of progress are to no avail.

MISSISSIPPI ETV

When Mississippi ETV earned the coveted George Foster Peabody Award, the citation read: " for enhancing the educational system for the state of Mississippi through the innovative use of televison." Today, with the broadcast of more than 100 classroom series in all subject areas, from computers to language arts, economic education and library skills, ETV is considered indispensable by teachers at all grade levels. Mississippi ETV carries a full in-school instructional schedule (list attached), children's programs, college credit courses, etc.

During the 1986-1987 school year, in K-12, MAET broadcast 1174.45 hours of ITV programming (1,852 programs from 112 series) broken as follows: Computer Science, 2.17% -- Science, 20.12%--Mathematics, 14.94%--Reading, 12.64%-- Social Studies, 11.59%, Language Arts, 10.81%-- Literature, 7.91% -- Career, Consumer Education and Ecomonic Education, 5.94% -- Health, Physical Education and Safety, 5.19% -- Staff Development, 3.51% -- Art, 1.91% -- Foreign Language, 1.72% --Music, 1.55%.

The ITV schedule is developed after a lengthy process of ascertainment within the educational community, through local schools and the State Department of Education. Mississippi ETV's operations and dedication to education is typical of most state networks and many community stations. Over the air broadcast and other learning technologies are used in fulfilling the educational mission.

NEEDS

With increased use of learning technologies, much, much more is possible. However, local and state funds are inadequate to meet the needs of rapidly expanding world technology.

If Americans are to again become competitive in the world economy, education is the key; and the presence of telecommunications-learning technologies in American education, and a generation of experience in their uses, gives Americans world-wide advantages. America is unique in its universality of availability of telephone, electric service, television and radio, home computers, electronic recorders, and cable and satellite distribution systems. To the broadcast community, these and newer technologies for education are obvious and necessary, and are the most cost efficient means to meeting important education goals.

Proposed legislation before this Committee can be of substantial help in utilizing the technologies for education which I have described. In particular, H.R. 90, the Education and Training for American Competitiveness Act of 1987, and the revisions of the Elementary and Secondary Education Act offer opportunities for which I would like to make some suggestions.

Education and Training for American Competitiveness:

States should be encouraged possibly with special matching funds to extend their uses of telecommunications for literacy training, vocational training services, and education in mathematics, science and foreign languages. Television has demonstrated its effectiveness in each of these areas somewhere in the nation. With expanded funds, these gains could be spread throughout the nation.

Postsecondary education is an area where television has been very effective. Its use should be encouraged in the administration of the programs funded by the legislation.

The proposed legislation's "Educational Telecommunications" chapter offers exceptional opportunity for educators to demonstrate new techniques and how working together consortially can achieve maximum benefits. This opportunity should be open to every sector of the nation to find the best projects available.

Television also has shown the capacity to assist in training for industrial competitiveness, and its use should be encouraged in the legislation.

RECOMMENDATIONS REGARDING CHANGES IN THE PRESENT ELEMENTARY AND SECONDARY EDUCATION LEGISLATION

Great inequities exist for economically disadvantaged children in their access to these educational technologies--both in the equipment and materials necessary to make their best use, and in the familiarity with them, of their teachers, administrators and parents. It is to overcome these inequities facing ecnomically deprived children that these recommendations are made.

Chapter 1.

A percentage (%) of each district's funds should be allocated to telecommunications-technologies equipment, materials and local support services.

School districts may participate in consortial arrangements with other districts, states or educational agencies in pursuit of improved access by disadvantaged students to educational telecommunications technologies.

A percentage of matching funds of the district's regular Chapter I allocation may be used for technologies on behalf of a special category of "at risk" students.

Funds should be made available to match state and local funds to train teachers and educational administrators in telecommunications technology practices.

Chapter 2.

The Department of Education should be authorized a telecommunications technology fund to provide for major nationwide productions of curriculum materials aimed at disadvantaged students; 10% of project funds would go for local utilization support by local public television station or other coordinating agencies.

SUMMARY

Local Public Television stations already have expertise and are heavily involved in bringing technology into the classroom, and they should be factored in as an existing , expandable resource. The Public Broadcasting Service and regional public broadcast organizations also make a major cost-effective contribution in bringing educational technology to users.

Desperately needed are more high quality instructional television programs at all levels in all curriculum areas. All types of new learning technologies need to be brought to bear and made available to all areas of the nation, particularly to the more economically deprived areas and situations.

No attempt has been made here to delineate a dollar amount, or to provide a complete scenario for the implementation of a major national commitment to learning technologies. Without a financially significant share, however, the many educational advantages of learning technology will not happen on a national basis, the vision and goals of HR 90 "Education Training for American Competitiveness Act of 1987" will suffer thereby.

It is my belief along with my colleagues that federal educational funds could not be more productively utilized than in learning technologies.

Thank you very much for the opportunity to appear before you. I am sure you have heard and will hear about the great educational needs of the country all across the entire spectrum of education. I hope I have been able to give you a small glimpse of what is now happening in educational learning technologies, and to share with you the tremendous opportunity in educational technologies, and the great excitement of my colleagues. I have not spoken to essential quality necessary and many other important factors, however, I have tried to give you a sufficient overview. Thank you for your courtesy.

Senator PELL. The hearing of this subcommittee is now adjourned.

[Whereupon, at 11:22 a.m., the subcommittee was adjourned.]

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